Adapting and Piloting a Cognitive-Behavioural Group Therapy-based Anxiety Intervention Programme for Vulnerable Children from a Disadvantaged Background within the South African Context

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Declaration

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Abstract

Anxiety is a prevalent psychological problem amongst children worldwide and has been identified as a concerning mental health issue in need of intervention, especially amongst vulnerable children within disadvantaged South African contexts. Within such contexts, access to mental health services is particularly limited due to a lack of resources that diminish service delivery capacity. Importantly, anxiety symptoms have demonstrated a trend towards the development of anxiety disorders and numerous associated negative outcomes in the absence of intervention. Cognitive-behavioural therapy (CBT)-based programmes have been established as an efficacious response to child anxiety disorders and effective as a preventive approach. Notably, preventive interventions have the potential to reduce demands on resources and increase reach with more universal dissemination by non-expert programme facilitators.

Recent advances in CBT-based anxiety intervention research have pointed to the potential of brief, intensive formats as a cost-effective, accessible and child-friendly treatment alternative for childhood anxiety problems. The potential value of the contextual adaptation of evidence-based programmes and outcomes measures to fit with new priority populations has also been established. The adaptation of existing interventions may overcome context-specific barriers to the delivery of programmes. The current study was motivated by a dearth of intervention research in the South African context and the need for accessible, cost-effective and contextually tailored mental health services for vulnerable children in disadvantaged semi-rural farming communities in South Africa.

In response, the current study was implemented in two phases. *Phase 1* entailed the contextual adaptation of the group, CBT-based, Dutch *Dappere Kat* anxiety prevention programme, based on information obtained from multiple community consultations. This resulted in the formulation of the brief, intensive, Afrikaans *Ek is Dapper* (BRAVE) group CBT-based anxiety prevention programme. *Phase 2* entailed a pilot study implementation and evaluation of the BRAVE programme with a mixed methods quasi-experimental design (with an immediate intervention group, a delayed intervention group, and pre-, post- and follow-up outcomes measures). A sample of 21 children (aged 9 to 14 and in Grades 3 to 7) participated in the pilot study implementation and programme evaluation on three semi-rural farm sites. Quantitative data pertaining to the preliminary effectiveness of the BRAVE programme were collected at four-time points (T1-T4). Qualitative data pertaining to the

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perceived effectiveness, feasibility and acceptability of the BRAVE programme were collected session-wise and at 3-months post-intervention.

The pilot study mixed methods preliminary effectiveness evaluation produced promising trends in response to the BRAVE programme with a significant reduction in overall anxiety symptom scores over time. However, significance findings were variable and were interpreted with caution in the context of concerns with the outcomes measures identified in *Phase 1* and the relatively small sample size of *Phase 2*. Qualitative data indicated promising outcomes in terms of the perceived effectiveness and benefit of the programme with reports of the acquisition, application and generalisation of programme-based coping skills post-intervention. Furthermore, feasibility outcomes were good and indicated that a brief, intensive implementation on farm sites by programme facilitators is worth considering. Finally, the programme and its adaptations yielded good acceptability as reported by both participants and programme implementation observers. The outcomes and findings of the current South African study, a first of its kind, was critically reviewed with recommendations for future research of a similar nature.

Keywords: anxiety symptoms, vulnerable children, CBT-based programmes, brief intensive prevention, contextual adaptation, vulnerable children, pilot study.

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Opsomming

Angs is ’n heersende sielkundige probleem onder kinders en is geïdentifiseer as ’n sorgwekkende geestesgesondheidskwessie wat intervensie benodig, veral onder kwesbare kinders in agtergeblewe Suid-Afrikaanse kontekste. Binne hierdie kontekste is toegang tot geestesgesondheidsdienste veral beperk weens menslike hulpbron-, logistiese- en geldtekorte en dit beïnvloed dus die beskikbaarheid van behandeling. Veral van belang hier, is dat angs wat nie aangespreek word nie, geneig is om te lei tot die ontwikkeling van simptome van angsversteurings en ander verwante negatiewe uitkomste. Kognitiewe gedragsterapie (KGT)-gebaseerde programme is bewys as ’n effektiewe respons tot angsversteurings by kinders en ook as ’n voorkomende benadering vir kwesbare kinders. Dit is belowend, aangesien sulke voorkomende intervensies die potensiaal het om die eise op hulpbronne te verminder.

Van verdere belang, is dat onlangse navorsing met betrekking tot KGT-gebaseerde intervensie, dui op die doeltreffendheid van korter, meer intensiewe formate in die verskaffing van koste-effektiewe, toeganklike en kindervriendelike behandeling vir kinder angsprobleme. Nuwe neigings in intervensie-navorsing dui ook op die potensiële waarde daarvan om hierdie programme, wat reeds as effektief vasgestel is, aan te pas vir ander kontekste sodat dit geskik is vir nuwe prioriteit-populasies. Hierdie aanpassing het ten doel om kontekssspesifieke hindernisse tot die lewering van programme te oorkom en die effektiwiteits-uitkomstemetings ook kruis-kultureel aan te pas. Die huidige studie is gemotiveer deur die tekort aan intervensienavorsing en geestesgesondheidsdienslewering in semi-landelike plaasgemeenskappe in Suid-Afrika, en fokus daarop om kontekstueel en bestaande effektiewe KGT-gebaseerde voorkomingsintervensie-programme aan te pas, om die aangepaste program in ’n semi-landelike gemeenskapkonteks te implementeer, en om die voorlopige effektiwiteit, lewensvatbaarheid en aanvaarbaarheid daarvan te evalueer as ’n respons tot kinderangs-probleme binne hierdie konteks.

In reaksie op hierdie doelstelling, is die studie in twee fases geïmplementeer. *Fase* 1 het die kontekstuele aanpassing van die groep-, KGT-gebaseerde Nederlandse Dappere Kat angsvoorkomingsprogram behels deur middel van inligting wat uit veelvoudige gemeenskapskonsultasies verkry is. Dit het gelei tot die formulering van die kort, intensiewe Afrikaanse Ek is Dapper (genoem die DAPPER) groep-, KGT-gebaseerde angsvoorkomingsprogram. *Fase* 2 het die implementering en evaluasie van ’n loodsprojek van die DAPPER-program behels met gemengde metodes, kwasi-eksperimentele ontwerp (met ’n onmiddellike intervensiegroep, ’n uitgestelde intervensiegroep en pre-, post- en opvolg-

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uitkomstemetings). ’n Steekproef van 21 kinders (van ouderdomme 9 tot 14 en in Graad 3 tot 7) op drie semi-landelike plase het aan die loodsprojek se implementering en program-evaluasie deelgeneem. Kwantitatiewe data wat verband hou met die voorlopige effektiwiteit van die DAPPER-programme is tydens vier tydpunte (T1-T4) ingesamel. Kwalitatiewe data wat verband hou met die persepsies rondom effektiwiteit, lewensvatbaarheid en aanvaarbaarheid van die DAPPER-program is sessie-wyd asook 3 maande post-intervensie, ingesamel.

Die loodsprojek se gemengde-metode, voorlopige effektiwiteits-evaluasie het belowende tendense getoon met betrekking tot die DAPPER-programme, met ’n beduidende vermindering oor tyd in die algehele angssimptoom-tellings. Nietemin, bevindinge oor beduidendheid is veranderlik en is versigtig geïnterpreteer binne die konteks van bekommernis oor uitkomste-maatstawwe in *Fase* 1 en die relatiewe klein steekproefgrootte van *Fase* 2. Kwalitatiewe data het post-intervensie belowende uitkomste getoon in terme van die waargenome effektiwiteit en voordele van die program met rapportering van die verkryging, toepassing en veralgemening van programgebaseerde hanteringsvaardighede. Verder was lewensvatbaarheidsuitkomste goed en het daarop gedui dat kort, intensiewe implementering deur programfasiliteerders op die plase die moeite werd is om te oorweeg. Laastens het die program en die aanpassings daarvan goeie aanvaarbaarheid, soos gerapporteer deur beide deelnemers en waarnemers van die program-implementering opgelewer. Die uitkomste en bevindinge van die huidige Suid-Afrikaanse studie, die eerste van hierdie aard, is krities in oënskou geneem met aanbevelings vir toekomstige navorsing van ’n soortgelyke aard.

Sleutelwoorde: angssimptome, kwesbare kinders, KGT-gebaseerde programme, kort intensiewe voorkoming, kontekstuele aanpassing, loodsprogram.

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Dedication

To my mother Erna (Streit) Myburgh

Instant Ennie, jammer mamma dat ek so gedraai het, dat mammie nie hierdie een kon sien en geniet nie, dat Erna nie op die foon kon spring en vir almal kon vertel dat, "My slim kind, Lolla, het haar doktorsgraad gekry" nie.

This one is dedicated to you – my mother, my hero. You kept me honest with myself. For that I will be ever grateful.

Farewell to you and the youth I have spent with you.
It was but yesterday we met in a dream.
You have sung to me in my aloneness,
and I of your longings have built a tower in the sky.
But now our sleep has fled and our dream is over, and it is no longer dawn.
The noontide is upon us and our half waking has turned to fuller day,
and we must part.
If in the twilight of memory we should meet once more,
we shall speak again together and you shall sing to me a deeper song.
And if our hands should meet in another dream,
we shall build another tower in the sky.

Khalil Gibran

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List of Abbreviations

CA	Contextual adaptation
CAN	(mnemonic) C = Calm my feelings, A = Adapt my thoughts, and N = make New plans.
CCA	Cross-cultural adaption
CBT	Cognitive-behavioural therapy
CR	Conditioned response
CS	Conditioned stimulus
BIC	Brief, intensive and concentrated interventions
DIG	Delayed intervention group
DAPPER	Dink Aan Positiewe Planne en Relax (Think of positive plans and relax)
DCA	Developmentally sensitive child-friendly adaptation
FEAR	(mnemonic) F = Feeling frightened? E = Expecting bad things to happen? A = Attitudes and actions to help, and R = Results and rewards
FRIENDS	(mnemonic) F = Feeling worried? R = Relax and feel good, I = Inner thoughts, E = Explore plans of action, N = Nice work, reward yourself!, D = Don't forget to practice, and S = Stay cool and calm!
GCBT	Group-based cognitive-behavioural therapy
ICBT	Individual cognitive-behavioural therapy
IIG	Immediate intervention group
NGO	Non-governmental organisation
NS	Neutral conditioned stimulus
OCD	Obsessive compulsive disorder
P	Participant
PPCT	Process, person, context and time
RCT	Randomised controlled trial
SCAS	Spence Children’s Anxiety Scale

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SES	Socio-economic status
STIC	(mnemonic) S = Show, T = That, I = I, C = Can
SPSS	Statistical Package for the Social Sciences
T1	Testing time 1
T2	Testing time 2
T3	Testing time 3
T4	Testing time 4
UCR	Unconditioned response
UCS	Unconditioned unpleasant stimulus

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Papers and Conference Presentations

Loxton, H., Myburgh, N., & Engels, R.C.M.E (2016). *Challenges in the cross-cultural adaptation of an anxiety measure within the South African context*. Poster presentation at the 11th International Conference on Child and Adolescent Psychopathology, 18 – 20 July 2016, University of Roehampton, London, England.

Myburgh, N., Loxton, H., & Muris, P. (2019). *Keep it brief – innovative directions in anxiety prevention for vulnerable children in disadvantaged South African contexts.* Poster Presentation at the 9th World Congress of Cognitive and Behavioural Therapies, 17 – 20 July 2019, The City Cube, Berlin, Germany.

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CHAPTER 1: INTRODUCTION

1.1 Introduction to and motivation for the present study

Broadly, this study was motivated by a sincere interest in the promotion of the mental wellbeing of vulnerable children who live in disadvantaged South African contexts. As will be supported by literature in the subsections below, the problem of elevated anxiety symptoms in children and the associated potential risk for the development of anxiety, co-morbid psychiatric disorders as well as negative future outcomes in the absence of effective intervention, has been established both internationally and in the South African context. The development of problematic anxiety has also been associated with disadvantaged (also in South African) contexts where children are most vulnerable and services most lacking. This combination of established need and the lack of access to intervention services to address this need focused the current study to apply an evidence-based intervention approach combined with creative, context-specific adaptations. The current study hoped to: (i) contribute to the gap in academic literature in the field of child anxiety prevention interventions in vulnerable South African contexts; (ii) contribute to academic dialogue related to innovative solutions to the delivery of psychological services in such contexts; and (iii) present a contextually tailored intervention programme and to evaluate its potential effectiveness, feasibility and acceptability.

1.1.1 The prevalence of anxiety in children: global and local context

Globally, mental health disorders constitute an estimated 13% of the disease burden (Hock, Kolappa, Burkey, Surkan, & Eaton, 2012). Anxiety disorders are rated 5th in their contribution to DALY – Disability Adjusted Life Years with over 27 million people suffering from debilitating anxiety in 2013 (Marthers & Stevens, 2013) and under the top ten contributors to disability (Institute for Health Metrics and Evaluation, 2013). It is estimated that 44% of mental health difficulties involve anxiety disorders (Baxter, Patton, Scott, Degenhardt, & Whiteford, 2013) and that 10 to 20% of children are affected (Cortina, Sodha, Fazel, & Ramchandani, 2012; Morris et al., 2011); moreover 50% of lifetime mental disorders start in childhood or adolescence (Kessler et al., 2007). Worryingly, childhood anxiety disorders and elevated anxiety levels are widespread (e.g. Lowry-Webster, Barrett, & Dadds, 2001; Rosenstein & Seedat, 2011) with prevalence rates, ranging from 5 to over 23% (as reported by Van Starrenburg, Kuijpers, Hutschemaekers, & Engels, 2013). Yet both the detection and intervention of elevated anxiety are inadequate (Muris & Broeren, 2009;

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Reigada, Fisher, Cutler, & Warner, 2008) despite evidence that indicates a relationship between compromised childhood mental health and future disability, functional impairment and diminished school completion (Kieling et al., 2011; Riglin, Petrides, Frederickson, & Rice, 2014).

In South Africa, neuropsychiatric conditions have been positioned as third in their contribution to the total disease burden (Lund et al., 2008); and lifetime mental health disorders have been identified in more than 25% of the population (Alonso, 2012) of which anxiety disorders rank highest with a lifetime prevalence of 15.8% (Herman et al., 2009). Importantly, childhood and adolescent mental health disorders present a burden to public health services delivery, with about 20% of youth reporting symptomology (Flisher et al., 2012) and prevalence rates of between 22% and 25.6% amongst children (Williams et al., 2008). Although South Africa is no exception amongst its sub-Saharan counterparts in its limited data on the prevalence of child and adolescent mental health disorders, including anxiety (Erskine et al., 2017), this study argues that it is reasonable to consider the potential burden of anxiety problems amongst vulnerable children who live within disadvantaged contexts. This argument is supported by recent studies such as that of Das-Munshi et al. (2016) that highlight concerning anxiety prevalence rates of 16% amongst adolescents, particularly amongst those who experience mental health inequalities associated with historically disadvantaged South African contexts.

1.1.2 The challenges of mental health services in the South African context

Flisher et al. (2012) highlight an unavoidable dilemma in South African mental health services as the constitutional right to access remains unmet 20 years post-Apartheid. Mental health researchers still report rife disparities that continue to affect historically disadvantaged [1]black and coloured populations. These disparities are associated with a pervasively unequal post-Apartheid society in which the mental health of children and adolescents is most at risk (Das-Munshi et al., 2016). Amongst mental health disorders, anxiety disorders implicate significant personal and societal cost (Alonso, 2012; Heckler et al., 2012; Kleintjies et al., 2006; Williams et al., 2008). Hence, a powerful motivating factor in the formulation of research to "best intervene, reduce, or remediate … difficulties associated with anxiety" (Lowry-Webster et al., 2001, p. 37) as a global chasm exists between mental health needs of

[1] Kindly refer to 2.2.1 for a discussion of culture and race as it is presented in the current study.

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children and the availability of resources and effective responses (Alonso, 2012; Kendall, Settipani, & Cummings, 2012; Kieling et al., 2011; Morris et al., 2011).

South Africa's unique socio-political milieu contextualises the high risk of mental health disease (Williams et al., 2008) amongst its children who report that issues such as personal safety and infrastructure deficiencies affect their mental wellbeing (Savahl et al., 2015). Post-Apartheid South Africa faces violence, crime, socio-economic and racial disparities, HIV and Aids, and related parental loss, and alcohol use and abuse; all conducive to the development of mental health difficulties, including elevated anxiety and fears (Burkhardt & Loxton, 2008; Burkhardt, Loxton, Kagee, & Ollendick, 2012; Cortina et al., 2012; Visagie, Loxton, Ollendick, & Steel, 2013; Williams et al., 2008; Zwemstra & Loxton, 2011). Fears, common amongst South African children, demonstrate greater frequency and intensity in lower socio-economic conditions (Burkhardt & Loxton, 2008; Burkhardt et al., 2012; Burkhardt, Loxton, & Muris, 2003; Cortina et al., 2013; Loxton, 2009; Zwemstra & Loxton, 2011). Importantly, it is suggested that [2]black and coloured children suffer from greater intensity of fears, resulting from deprived, violent and impoverished environments (Muris, Du Plessis, & Loxton, 2008; Muris et al., 2006) and that parental substance abuse has been associated with increased rates of anxiety in children (Solis, Shadur, Burns, & Hussong, 2012). The historical situatedness of these factors that affect the mental health of South African children should not be side-lined in the current study, but rather explored fully in terms of how this backdrop contextualises the pervasiveness of mental health (amongst several others) inequalities.

Therefore, even though research on childhood anxiety in various South African contexts is limited (Visagie, 2016), a need has been established to respond to the problem of elevated levels of anxiety symptoms in South African children who fall within the (currently) identified contexts of increased risk and disadvantage based on socio-historically determined mental health inequalities (Das-Munshi et al., 2016). Petersen, Bhana, and Swartz (2012) argue that the cycle of poverty and mental disorder can be interrupted by the implementation of prevention interventions early in the lifespan within at-risk populations.

With the potential value of prevention interventions to change both the course of anxiety development in at-risk children and to reduce personal and societal cost of anxiety disorders within communities of vulnerable children, mental health policies and models must be actively and practically restructured towards early, effective detection and prevention

[2] Kindly refer to 2.2.1 for a discussion of culture and race as it is presented in the current study.

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(Petersen et al., 2012). Mental health services are under-provided and the provision of treatment is inadequate; additionally, symptomology and severity of anxiety do not spontaneously remit (Petersen et al., 2012; Pillay & Lockhat, 2001; Podell, Mychailyszyn, Edmunds, Puleo, & Kendall, 2010). On the contrary, pathology may generally worsen and continue into adulthood (Barrett & Turner, 2001; Muris & Broeren, 2009; Reigada et al., 2008).

Mental health services in South Africa, particularly for children, have been stipulated as a priority (*The Ekurhuleni Declaration*, 2012; Lund, Kleintjies, Kakuma, & Flisher, 2010). An exhaustive theoretical outline of service structures to meet the needs of at-risk youth exists (Flisher et al., 2012), excellent policies are in place (Kleintjies, Lund, & Swartz, 2013), and the Primary Health Care Model advocates prevention (*Ekurhuleni Declaration*, 2012). Regrettably, several barriers undermine practical application and result in the discrepancy between need and delivery (Bruwer et al., 2011; Flisher et al., 2012; Lund et al., 2010; Young, 2009). Inadequate implementation of programmes, the unavailability or misappropriation of resources, stigmatisation and lack of mental health literacy have caused that South Africans with moderate to severe psychiatric disorders often do not obtain treatment (Andrade et al., 2013; Kendall et al., 2012; Morris et al., 2011; Sorsdahl, Stein, & Lund, 2012; Williams et al., 2008). Importantly, barriers such as cost of services (Burns, 2011), inadequate time and human resources, inaccessibility of evidence-based services (Tomlinson et al., 2016), varied commitment and the inaccessibility of the location of services contribute to children not receiving mental health services. These barriers need to be addressed by the development of service delivery relevant to the needs of young people who face these barriers (Mokitimi, Schneider, & De Vries, 2018). A marked shortage of mental health care professionals in South Africa, particularly [3] black psychologists who are predominantly situated in urban areas (Lund et al., 2010), as well as extensive linguistic and cultural variation between service providers and clients (Pretorius-Heuchert & Amed, 2001) contribute to the problem. Thus, intervention research must adopt a community psychology perspective, focusing on appropriate interventions; relevant application, theory and research (Pretorius-Heuchert & Amed, 2001); and cost-effective, innovative, simple group-orientated cognitive-behavioural strategies that can be disseminated in vulnerable communities in lower socio-economic circumstances (Chrisholm et al., 2007).

[3] Kindly refer to 2.2.1 for a discussion of culture and race as it is presented in the current study.

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1.1.3 Cognitive-Behavioural Therapy (CBT)-based interventions as a solution

Early intervention programmes involving both screening and prevention are often argued to be of greatest importance (Kieling et al., 2011; Rosenstein & Seedat, 2011), particularly age-appropriate, accessible and economical programmes (Morris et al., 2011). International cognitive-behavioural therapy-based research is proliferating (Stallard, 2005, however despite advances in research, less than 20% of children in need of mental health services receive them (Essau, 2005). CBT interventions implemented with youth have been established as promising and preliminary pooling of data indicate remission in 63.67% of children (Cartwright-Hatton, Roberts, Chitsabesan, Fothergill, & Harrington, 2004), but there is still little supportive evidence for the effectiveness of CBT in the South African context (Rosenstein & Seedat, 2011).

Manualised, group CBT programmes are of definite interest as they are comparative in efficacy to individual treatments (Barrett & Turner, 2001); flexible in delivery design (Farrell & Barrett, 2007; Young, 2009) and effective in reducing elevated levels of anxiety (Mostert & Loxton, 2008; Mychailyszyn, Brodman, Read, & Kendall, 2012; Weisz & Jensen, 2001). Young (2009) argues for the exploration of context-specific adjustments that may impact successful delivery of CBT-based programmes. A number of recent developments in the context-specific adaptation to the delivery of CBT intervention programmes for children have revealed that cultural, developmental and programme delivery model adaptations that enhance feasibility, accessibility and acceptability of programmes in new priority populations should be focal in current research studies (Beidas, Benjamin, Puleo, Edmunds, & Kendall, 2010; Castro, Barrera, & Martinez, 2004; Kendall et al., 2012; Öst & Ollendick, 2017). Two manualised CBT intervention programmes found to be effective in addressing elevated levels of anxiety symptoms amongst children in a variety of contexts are: the American *Coping Cat* programme (Kendall, 1994; Podell et al., 2010) and the Australian FRIENDS programme (Barret & Turner, 2001). A shared limitation of these programmes is insufficient context-specificity (Kendall, Chu, Gifford, Hayes, & Nauta, 1998; Mostert & Loxton, 2008). In a pilot study of the FRIENDS programme in the South African context, conducted by Mostert and Loxton (2008), context-specific limitations, such as linguistic difficulties in developing appropriate translations and the lack of fit with socio-contextual issues such as violent crime and poverty were found.

This concern with context-specificity was addressed in the *Dutch Dappere Kat Programme* (henceforth the DUTCH programme), an adapted group-based indicative prevention version of the *Coping Cat* programme (Van Starrenburg et al., 2013), which has

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also been found to be effective in the reduction of childhood anxiety in the Dutch context (Van Starrenburg, Kuijpers, Kleinjan, Hutschemaekers, & Engels, 2017). This version of the *Coping Cat* programme formed the basis for the contextual adaptation and pilot-testing of a South African version, the *Ek is Dapper* (I am Brave) programme (henceforth the BRAVE programme) for a specific group of vulnerable children from a disadvantaged community. The motivation for the choice of the DUTCH programme was amongst others that it had been adapted from the *Coping Cat* treatment intervention for indicative prevention amongst children aged 7 to 13, it contained fewer sessions (12 instead of 18), required less contact session time and was adapted for a group delivery format (Van Starrenburg et al., 2013); all of which streamlined implementation of the programme and reduced demands on resources. The contextual adaptation of this programme to fit with a vulnerable group of South African children was intended to contribute to the need for research in the field of intervention research related to CBT-based prevention intervention programmes in non-western contexts (Hock et al., 2012), such as South African, Afrikaans-speaking, semi-rural farmworker communities.

In conclusion, the motivation for the current study thus included the following: (i) the established global and South African prevalence of elevated anxiety symptoms amongst children, (ii) the increased risk for elevated levels of anxiety symptoms amongst South African children due to context-specific vulnerability, (iii) the lack of effective, cost-effective and accessible psychological services, particularly for vulnerable children from disadvantaged contexts, (iv) the lack of research on anxiety and anxiety prevention amongst vulnerable children from disadvantaged South African contexts, (vi) the wealth of Western-based research that supports the effectiveness of CBT-based intervention programmes to address problems of elevated childhood anxiety, and (vii) the need for innovative and creative adaptations to the delivery of effective CBT-based interventions to enhance context-specificity.

1.2. Problem statement and focus

CBT has been shown to be effective internationally and locally in treating children's anxiety problems (Kieling et al., 2011; Rosenstein & Seedat, 2011). CBT-based prevention programmes are considered promising as empirically supported, effective intervention responses to the prevalence of anxiety disorder symptoms amongst children internationally (Johnstone, Kemps, & Chen, 2018), and are also considered promising in the South African context as explored in a few studies by for example Visagie (2016), and Mostert and Loxton

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(2008). Recommendations in response to the need for mental health care services in South Africa focus on the development of preventive interventions that are contextually appropriate (Braathen, Vergunst, Mannan, & Swartz, 2013). The intention of the current study was to explore the potential of a contextually adapted selective prevention intervention programme as a response to anxiety symptoms amongst children from specific South African farmworker communities, which has as far as the researcher could ascertain at the time of the current study not been investigated.

1.3 Research question and aims of the study

Therefore, the current study aimed to answer the following research question:

Will an adapted CBT anxiety intervention programme to lower elevated levels of anxiety symptoms in a vulnerable group of children from a disadvantaged background within a South African context be effective, feasible and acceptable?

To respond to the research question, two broad aims were addressed in two phases. The two broad aims were as follows:

1. To adapt an effective intervention programme contextually for a vulnerable group of South African children, using the organisational framework of Card, Solomon and Cunningham (2011) in *Phase 1* of the current study.
2. To pilot test (a) the preliminary effectiveness of the contextually adapted programme using a mixed methods quasi-experimental design with a quantitative measure of anxiety levels as well as qualitative measures of perceived outcomes of the programme, and (b) the feasibility and acceptability of the adapted programme using a qualitative design with qualitative measures of both participant and programme implementation observer responses in *Phase 2* of the current study.

1.4 Defining key concepts

1.4.1 Childhood fear and anxiety

Fear and anxiety are experienced by most children and adolescents, and may be considered normal when experienced in mild or infrequently in moderate levels (Castro, Fonseca, & Perrin, 2011); however fear and anxiety, at an elevated level, can interfere with normal daily functioning and ultimately lead to phobia or anxiety disorder (Muris, 2007). Even though fear and anxiety may be utilised interchangeably and may be similar in nature, an important

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distinction is made in the literature. Fear is defined as a response to an imminent threat that comprises the flight or fight response in which an individual must be ready to respond (Muris, 2007) and entails avoidance or discomfort (Castro et al., 2011). It involves the activation of the sympathetic nervous system in response to a perceived threat, serves as a survival function with resultant physiological reactions, such as increased heart rate and muscle tension amongst others (Muris, 2007).

Anxiety, on the other hand, can be experienced without an immediate threat where potential negative or threatening outcomes cause an anxious response (Hill, Waite, & Creswell, 2016). Mash and Wolfe (2010) describe anxiety as a combination of strong negative emotion and somatic symptoms of tension in response to possible threat. Castro et al. (2011) conceptualised anxiety according to three main components first presented by Lang in 1968: A *behavioural component* that presents as escape or avoidance behaviours, or distress and restlessness in enduring a perceived threat, a *cognitive component* that presents as fearful worry, apprehension or perception of uncontrollability over a perceived threat and a *physiological component* that presents as heightened autonomic arousal in response to a perceived threat. The *behavioural component* entails the activation of what is referred to as the *flight-or-fight* response, which is an adaptive response to a real, dangerous threat after which there is a reduction of anxiety once the threat is overcome or avoided (Castro et al., 2011). An avoidant response to the activation of the *flight-or-fight* response when the individual is confronted with a threat that does not pose danger, results in the strengthening of avoidance that further maintains the excessive or inappropriate fear or anxiety response (Mash & Wolfe, 2010). The *cognitive component* is adaptive in response to a dangerous threat as it focuses attention on threat detection, but when children are unable to locate these threats in their environment (because there is no real threat), they are overwhelmed by continuous searching, internalise the search and find fault with themselves or distort their perception of reality (Mash & Wolfe, 2010). The *physiological component* is adaptive as autonomic activation mobilises the body into action when confronted with a real threat; however when the activation is excessive and in response to something that is not really a threat, children are drained of their energy (Mash & Wolfe, 2010). Each of these components of anxiety are associated with symptoms, with for example behavioural symptoms such as trembling, nail biting, crying and stuttering; cognitive symptoms such as thoughts of incompetence, thoughts related to fears of injury or being scared and difficulty with concentrating; and physiological symptoms such as fatigue, increased respiration, nausea and dizziness, butterflies in the stomach, feeling hot and shortness of breath (Mash & Wolfe,

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2010).

Since the experience of both fear and anxiety is considered normal and both play a protective / survival role, and importantly follow a normal developmental course in childhood (Muris, 2007), the question is when is it considered abnormal and how do we define 'abnormal' or 'pathological' fear and anxiety? In terms of abnormal psychological responses, Muris (2007) defines fear as referring to phobic disorders that involve a negative emotional response to a situation that is not proportionate to the actual level of threat or danger, and anxiety as disorders that involve tension, apprehension, worry and distress without an actual threat or danger. Castro et al. (2011) state that the consensus of the criteria for the difference between normal and abnormal fears and anxiety in children is as follows: the fear or anxious response is not appropriate for the developmental level of the child, it is disproportionate to the perceived threat, it is persistent, irrational, not transitory, and impairs a number of areas of functioning or psychosocial development. An anxiety disorder is defined by McLoone, Hudson, and Rapee (2006) as an irrational fear excessive to the situation or the developmental level of the child. Mash and Wolfe (2010) state that anxiety symptoms develop into disorder when they are excessive and debilitating. The effects of childhood anxiety are also significant in their impact on developmental trajectories and educational attainment, as well as their influence on the development of friendships and family relationships (Stallard, 2010).

1.4.2 Vulnerable children in disadvantaged South African semi-rural wine farmworker contexts

Various risk factors define childhood *vulnerability*, such as parental death or desertion; chronic caregiver illness; poverty; hunger; limited access to services; little or no access to basic needs; academic or educational difficulties; abuse; exposure to violence and inadequate housing (Skinner et al., 2006), traumatic life experiences, inconsistent or abusive parenting and belonging to marginalised groups (Petersen et al., 2012).

Risk factors increase the likelihood and severity of symptoms of mental distress that may result in the development of disorder (Barret & Turner, 2004). These risk factors may be biological, physiological, developmental or environmental in nature and they are also considered cumulative (Kliewer et al., 2017) meaning that the more risk factors there are, the more likely or severe the disorder (Barret & Turner, 2004). Barret and Turner (2004) highlight various risk factors that could potentially influence the development of poor mental health and disorder in children and youth. These include *individual risk factors* such as

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schooling context, bullying, peer rejection or deviant peer group, low birth weight, school failure, and inadequate behaviour management for example; *life events risk factors* such as physical or sexual abuse, insecure caregiver attachment, divorce, death of a family member, illness, parental unemployment, poverty and witnessing trauma; *family or social risk factors* such as single parenting and absent parents; and *community and cultural factors* such as a disadvantaged socioeconomic status, large family size, social or cultural discrimination, exposure to violence or crime, high-density living, poor supervision and monitoring of children, poor housing conditions, harsh or inconsistent discipline, isolation from support services, enduring parental unemployment, and parental substance abuse and mental illness (Barret & Turner, 2004). Children of substance-abusing parents are also at an increased risk for vulnerability, including anxiety, and assisting them with empirically supported intervention programmes should be a priority (Bröning et al., 2012; Solis et al., 2012). Historically, alcohol dependence and abuse by farmworkers in South Africa, associated with the 'Dop' remuneration system, increases the risk profile of children since neglect, poverty, violence and abuse often form part of the context (Gossage et al., 2014).

London (2003) outlines South African farmworker living conditions that may categorise their children as vulnerable and at risk for the developmental of mental health problems that are in line with the risk factors outlined above. According to London (2003) farmworkers suffer social and health problems, such as poverty, exposure to pesticides, and high burdens of disease that make them vulnerable. Additionally, farmworkers contexts are associated with lower literacy and educational levels (London, 2003). Housing and labour conditions vary widely with a number of houses not up to standards set out in labour legislation and many farmworkers not having access to water and basic sanitation or where it is provided, services being poorly provided (Kleinbooi, 2013). South African farmworkers are among the poorest in the employment sectors with statistics indicating a salary of R 1600 or less per month for 65.1% of farmworkers in 2015 (Visser & Ferrer, 2015). Additionally, a high number of farmworkers are employed on a part-time, seasonal basis with statistics in 2015 indicating 51.1% being permanently employed, 25.2% having limited employment and 23.6% having employment of unspecified duration (Visser & Ferrer, 2015). Therefore, contexts for farmworkers may entail low wages, poor housing facilities, difficult or non-existent access to education, and substandard health services (London, 2003). Visser and Ferrer (2015) highlight that there is a low average level of formal education (76.8% under Grade 5). Exposure to violence is common and also relates to alcohol use with more than 60% of emergency traumas at hospitals in the rural farming areas of the Western Cape

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believed to be alcohol-related (London, 2003).

For the purpose of this study, vulnerability was operationalized in terms of vulnerable South African children aged 9 to 14 years with a context-specific increased risk for the developmental of mental health problems.

1.4.3 Framework for prevention / early intervention programmes

Anxiety prevention programmes aim to inhibit the onset of anxiety disorder and / or to reduce the incidence of anxiety disorder in a population (Barret & Turner, 2004). The development of child anxiety prevention programmes requires consideration of the criteria for the selection of at-risk children who may be disorder free, but present elevated levels of anxiety symptoms and additional risk factors (Dadds, Spence, Holland, Barrett & Laurens, 1997). The difference between prevention and treatment is determined by the purpose and stage along a continuum at which the intervention is delivered (Dadds et al., 1997) where prevention may be implemented before the onset of treatment-resistant, inflexible behavioural patterns (Fisak, Richard, & Mann, 2011). Mrazek and Haggerty (1994) presented a framework for mental health interventions with prevention, treatment and maintenance placed on a spectrum of potential intervention responses. This spectrum will be outlined in this section in order to distinguish clearly between treatment and prevention interventions within the context of CBT-based programmes that tend to overlap in delivery and content.

According to the framework by Mrazek and Haggerty (1994), treatment interventions are intended for individuals who have met the criteria for diagnosis of a disorder and it comprises two components: (1) case identification and (2) standard treatment both of which include attempts to reduce the co-morbidity of additional disorders. The main objectives of treatment are: a reduction in the duration of a disorder; an increase in the duration of remission; interruption of the severity progression and recurrence; and the prevention of co-morbidity (Mrazek & Haggerty, 1994). The main objectives of prevention intervention include: the reduction of the occurrence of new cases, the delay of onset of disorder and the reduction of the duration of early symptoms (Mrazek & Haggerty, 1994). Prevention interventions are implemented before the onset of disorder and can be formulated as universal, selective or indicated prevention (Mrazek & Haggerty, 1994; Stallard, 2010;). Universal prevention interventions target the general public, regardless of the presence of symptoms or individual risk (Stallard, 2010). Selective prevention interventions focus on individuals or subgroups of the population with a significantly higher risk of developing mental disorders (Stallard, 2010). This risk may be classified as imminent or a lifetime risk

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and may be based on biological, psychological, or social risk factors associated with the onset of mental disorder (Mrazek & Haggerty, 1994). Indicated prevention interventions target high-risk individuals who have a possible biological predisposition for the development of disorder or who exhibit detectable symptoms that are still early and are not yet sufficiently severe to qualify for the diagnosis of disorder (Dadds et al., 1997; Fisak et al., 2011; Stallard, 2010).

In the current study, a selective prevention intervention approach was applied. This was considered the most appropriate approach as the potential cost was considered too high for the delivery of a universal prevention programme and the intention was to target children whose context-specific vulnerability suggested an increased risk for the development of problematic anxiety (Barret & Turner, 2001) either in the near future or at some point in their lifetime. Within this vulnerable group, it was expected that children who meet the criteria for both selective (the presence of elevated risk) and indicated prevention (the presence of elevated anxiety symptoms) would be included.

1.4.4 Group Cognitive-Behavioural Therapy (CBT)-based anxiety interventions

Silverman, Pina and Viswesvaran (2008) argue that group-based CBT (GCBT) is probably efficacious in the treatment of child and adolescent social anxiety disorder. GCBT with large groups of school children may also offer more cost and resource-effective responses to the growing need for anxiety prevention interventions and have shown promise in effecting similar success rates to individual CBT (ICBT) with the potential to prevent the development of anxiety disorders (Dadds et al., 1999).

The potential therapeutic role of including peers in the GCBT programme delivery mode should be considered with its possibilities in enhancing outcomes by the inclusion of peers with similar difficulties (La Greca & Landoll, 2011). Furthermore, considering the role of peers in GCBT may be instructive towards the improvement of future effectiveness as evaluation of peer variables that may moderate treatment outcomes will facilitate informed adaptations to delivery to suit the social contexts of those participating in the therapy (La Greca & Landoll, 2011). These peer variables may not only fall outside of group sessions, but may be considered within session processes. For example, in the current study, social practices and experiences of children who would participate in the anxiety prevention intervention study were considered in the formulation of delivery adaptation to enhance group dynamics and cohesion and to address the identified tendency for ridicule amongst peers. Thus, the group format of delivery was applied with the intention to (1) reduce demand

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on resources, (2) enlarge the potential future reach of the prevention intervention and (3) to enhance social support with the aim of improving the potential outcomes of the intervention.

1.4.5 The contextual adaptation of interventions

Castro-Camacho et al. (2018) present the concept of contextual adaptation that was applicable to the current study. Contextual adaptation includes culture but allows for the inclusion of other factors also, such as exposure to adverse living conditions, violence and crime (Castro-Camacho et al., 2018), impoverished environments, and developmental and literacy levels, all of which are important considerations in adaptation.

The adaptation of manualised interventions should balance fidelity (universal elements) and adaptation (flexibility) (Beidas, et al., 2010; Castro at al., 2004; Kendall et al., 2012). Familiarity with the core components of evidence-based interventions (Barrera, Castro, Strycker, & Toobert, 2013) avoid inappropriate adaptations (Castro et al., 2004) and enhance fidelity (Beidas et al., 2010; Connor-Smith & Weisz, 2003). Adapted interventions tailored for ethnic minorities have been found to be more effective than non-adapted interventions (Barrera et al., 2013) and Mier, Ory and Medina (2010) suggest a focus on language, translation, culturally familiar elements, values, environments, role models, and consideration of literacy levels.

Castro et al. (2004) propose three dimensions of content adaptation: cognitive information processing, affective-motivational characteristics and environmental characteristics. Cognitive information processing includes developmental level, age, language and literacy. Affective-motivational characteristics include gender, ethnic background, religious orientation and socio-economic status. Environmental characteristics will involve the context of the community (Castro at al., 2004; Connor-Smith & Weisz, 2003). Content, delivery (Castro et al., 2004) and structural adaptations are also of importance (Beidas et al., 2010) as they facilitate relevance of and interest in programmes by altering characteristics of core components and fusing programmes with community values (Beidas et al., 2010; Castro et al., 2004). Both content (meaning, values and beliefs) and context (familial, social, cultural and ecological) must be considered to ensure research that is socially and culturally valid (Kim, Yang & Hwang, 2006).

Card et al. (2011) recommend the application of seven practical steps in their adaptation framework, which was implemented in the current study: (1) selection of an evidence-based programme, (2) mobilizing the original programme's materials, (3) developing a programme model to understand the relationship amongst the original

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programme's components in order to assist with adaptation, (4) identifying the original programme's core components and best-practice characteristics, (5) identifying mismatches between the original programme and the new context, (6) adapting the programme model according to these differences, and (7) adapting the original programme materials. Particular consideration of (1) language, metaphors and literacy, (2) images and examples, and (3) participant developmental level, is needed (Card et al., 2011).

The practical steps suggested by Card at al. (2011) were applied in the current study in which the focus was on the contextual adaptation of the DUTCH programme (developed by Van Starrenburg et al., 2013). As suggested by the overlapping literature pertaining to the adaptation of evidence-based interventions, the researcher applied two levels of adaptation: (1) cross-cultural which entails consideration of appropriate changes to programme content and delivery to be consistent with the language, ethnic background, religious orientation, values and beliefs of the new context, and (2) developmental and child-friendliness which entails consideration of appropriate changes in programme content and delivery to be consistent with the literacy and developmental level of the new priority population. Both levels of adaptation were considered within the larger socio-political and socio-economic context.

1.4.6 Defining the 'pilot study'

The term *pilot study* usually refers to small-scale feasibility studies that test methodological and procedural elements, such as recruitment and retention, or to studies that evaluate a research instrument, such as an intervention programme or measurement instrument before application and implementation on a large scale (Kistin & Silverstein, 2015; Van Teijlingen, Rennie, Hundley, & Graham, 2001). These studies provide important information regarding the potential success or failure of research protocols and instruments (Van Teijlingen et al., 2001).

In piloting, the emphasis is frequently erroneously placed on statistical significance when the study may not be suitably powered; thus clear feasibility objectives and analytic plans are regularly omitted (Arain, Campell, Cooper, & Lancaster, 2010). Particularly, in a small pilot study, an effect size will likely be overestimated or underestimated (Kistin & Silverstein, 2015). Therefore, caution must be applied in reporting the results of pilot studies and preliminary effectiveness evaluations (should they be included) should be interpreted in context and with descriptive qualitative exploration. The main objective of a pilot study should be programme feasibility and acceptability evaluation to determine whether

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modifications (will) improve feasibility and delivery (Kistin & Silverstein, 2015; Thabane et al., 2010).

Pilot studies should, according to Kistin and Silverstein (2015) focus on testing study and programme logistics in order to explore both barriers and facilitators of dissemination and implementation. Additionally, pilot studies may enhance programme delivery when focusing on intervention fidelity and acceptability to identify areas for improvement as poorly delivered interventions run the risk of appearing to have no effect (Kistin & Silverstein, 2015). Hence the delivery process can be evaluated and altered or improved before large-scale effectiveness testing. Lancaster, Dodd, and Williamson (2004) stipulate the following recommendations for pilot studies: (i) the aims and objectives of a pilot study should be clear, (ii) participants included in a pilot study must be excluded from the larger, main study, (iii) primarily descriptive data and analyses should be applied, (iv) results from hypothesis testing should be considered preliminary and interpreted cautiously, and (v) the decision to proceed with the main study should not depend only on results from hypothesis testing.

In line with the above guidelines, the current pilot study explored the preliminary effectiveness of the adapted intervention programme (BRAVE programme) in lowering elevated levels of anxiety as well as the feasibility and acceptability of the implementation, delivery and content of the programme. In terms of the concept of effectiveness, the researcher acknowledges the difficulty often found in distinguishing between an effectiveness and an efficacy study. Efficacy may be defined in terms of an intervention's performance under tightly controlled circumstances whereas effectiveness may be defined in terms of an intervention's performance under real-world circumstances (Singal, Higgins & Waljee, 2014). The researcher bases her definition of this pilot study intent on the arguments made by Sidani and Braden (2011). In their view, *preliminary effectiveness* testing should be the focus of pilot studies in order to consider the potential effectiveness of interventions in conjunction with feasibility and acceptability, before efficacy testing. Therefore, hypothesis testing findings were contextualised by qualitative reports of perceived effectiveness outcomes, feasibility and acceptability in this small-scale study.

1.5 Organisation of the dissertation

This dissertation is presented in nine chapters. Kindly find a brief overview of each chapter below.

Chapter 1 introduces and provides the motivation for the study. The study rationale, research questions and aims are introduced and the study is motivated in terms of its need,

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significance and potential contribution to intervention research in the South African context. This chapter additionally defines concepts essential to the study.

Chapter 2 offers a literature review of (i) CBT and prevention intervention studies for childhood anxiety, and (ii) cultural issues and methods in the transcultural implementation of intervention research methods and findings.

Chapter 3 outlines the study's overarching socio-cultural theoretical framework, the theoretical underpinning of CBT, developmental theories relevant to the current study, as well as recent developments in cultural psychology theory relevant to the current study.

Chapter 4 outlines the methodology and procedure of *Phase 1* of the current research study: the contextual adaptation of an existing CBT-based prevention intervention and its outcomes measures.

Chapter 5 reports the outcomes and presents discussions of the contextual adaptation implemented in *Phase 1* of the current research study.

Chapter 6 outlines the research methodology applied in *Phase 2* of the current research study: the programme evaluation of the preliminary effectiveness, feasibility and acceptability of the adapted BRAVE programme.

Chapter 7 reports the findings and discussion of a mixed-methods evaluation of the adapted BRAVE programme's preliminary statistical effectiveness and qualitative perceived effectiveness outcomes.

Chapter 8 reports the findings and discussion of a qualitative evaluation of the adapted BRAVE programme's feasibility and acceptability.

Chapter 9 concludes this dissertation with a summary and integrated discussion of the conclusions and limitations, as well as recommendations for future research.

1.6 Chapter summary

Chapter 1 provided a general introduction to this study and contextualised the motivation for this research based on the incidence and prevalence of childhood anxiety disorder symptoms and their outcomes, the state of mental health services in the South African context and the potential of CBT-based prevention interventions to address anxiety symptoms amongst children in a context-specific priority population in South Africa. The research question and aims were presented accompanied by the definition of essential study concepts. Finally, Chapter 1 offered an overview of the organisation of this dissertation. Chapter 2 presents a literature review of research considered relevant to the current study.

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CHAPTER 2: LITERATURE STUDY

The literature study will summarise research and academic debates most relevant to the current study. This will contextualise the position of the researcher in her approach to *Phase 1*, the contextual adaptation of the DUTCH prevention intervention and *Phase 2*, the implementation and evaluation of the adapted intervention.

Firstly, the most pertinent literature on CBT-based intervention for childhood anxiety problems is presented. The efficaciousness of CBT as both a treatment and prevention intervention is discussed, along with an outline of a number of key differences between CBT-based treatment and prevention. The child-friendly and developmentally appropriate application of CBT-based interventions is vital to the current study, and literature from across the field is compiled into practical recommendations. Then, the most recent consensus in the literature related to three important considerations in CBT-based intervention programmes for childhood anxiety problems is offered: namely, group CBT (GCBT) and individual CBT (ICBT), the role of parents, and the use of manualised interventions. Next, an argument for the consideration of brief, intensive and concentrated CBT approaches to prevention interventions is formulated.

The role of context and culture in the adaptation, implementation and evaluation of psychological interventions is discussed with a consideration of the importance of culture in the formulation of psychological research. The researcher presents literature on the role of culture in mental health research, specifically childhood anxiety. Then debates and methods related to the cross-cultural application of CBT are presented, followed specifically by a consideration of the methods and issues related to the translation and cross-cultural adaptation of interventions and programme evaluation measures.

2.1 CBT-based interventions for childhood anxiety problems

CBT is based on a framework that presupposes the interconnectedness of cognitions, emotions, and behaviours with the focus on cognitions as the driving force behind both emotion and behaviour. Accordingly, CBT is based in the premise that the identification and adaptation of unhelpful cognitions will result in adaptation of associated emotions and behaviours (Muris, 2007). CBT-based interventions comprise cognitive strategies in which an awareness and understanding of negative self-talk is supplemented by cognitive restructuring that focuses on changing and controlling distorted cognitions and replacing them with functional, adaptive cognitions. Behavioural strategies comprise the modification of the

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behavioural responses that maintain anxiety by means of developing problem solving skills by means of modelling and role-play and adaptive behavioural responses (James, James, Cowdrey, Soler, & Choke, 2013). The emotive component of CBT comprises strategies in which awareness and understanding of the relationship between physiological arousal and anxiety is developed, followed by emotive management training in the form of relaxation training, systematic, hierarchical exposure to anxiety-provoking situations; planning and problem-solving training; and relapse prevention training (Barmish & Kendall, 2005; King, Heyne, & Ollendick, 2005).

2.1.1 CBT established probably efficacious in the treatment of childhood anxiety

CBT is the most common treatment modality for anxiety symptoms and disorders in children and it has found to be probably efficacious (La Greca & Landoll, 2011). CBT as a treatment approach to childhood anxiety offers a number of advantages over treatment as usual with it being considerably briefer, less expensive, less likely to necessitate additional services, and rated superior by parents (Weisz et al., 2009). Randomised controlled trials (RCT) have consistently established encouraging outcomes in the application of CBT for the treatment of childhood anxiety disorders (Barrett, Dadds, & Rapee, 1996; Kendall et al., 1997; Barrett & Turner, 2001; Kendall, 1994; Nauta, Scholing, Emmelkamp, & Minderaa, 2003; Stallard, 2010).

Silverman et al. (2008) implemented an effect size meta-analysis in a review study that demonstrated that at least 46% of participants no longer met the diagnostic criteria for diagnosis of post-treatment in 95% of the studies that evaluated CBT. James et al. (2013) systematically reviewed 41 studies and concluded that CBT is useful in response to childhood anxiety disorder as an application of conservative intention to treat (ITT) criteria yielded remission rates of 59% for CBT as opposed to 16.1% for control groups. Consistent with other studies, evidence of the superiority of CBT over alternative treatments at long-term, follow-up assessments is limited in community settings (Kodal et al., 2018). Higa-McMillan, Francis, Rith-Najarian and Chorpita (2016) argued in favour of CBT as a useful and appropriate first step in treatment for childhood anxiety disorder symptoms following their review. Crowe and McKay (2017) in their review of the most rigorous RCTs on CBT for childhood anxiety found small-to-medium outcomes on the reduction of anxiety symptoms immediately post-intervention.

Higa-McMillan et al. (2016) further argue that CBT with exposure has obtained the strongest support as an effective treatment with large effect sizes and durability of effects

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over 1-year posttreatment. Importantly, they argue that CBT with exposure is the most well-established treatment response to childhood anxiety because it has garnered diverse and strong support. This is due to the fact that CBT treatments have been evaluated within the greatest diversity in terms of participant characteristics (age and ethnicity), therapist characteristics (varying levels of training), delivery formats (group / individual / parent- or teacher-led / internet), and delivery contexts (school / home / day-care) (Higa-McMillan et al., 2016). The developments in clinical research that have garnered support for the effectiveness and probably efficaciousness of treatment interventions, such as CBT for childhood anxiety disorder, have laid the foundation for a change in focus to prevention intervention (Barret & Turner, 2004).

2.1.2 The application of CBT in the prevention of anxiety disorder symptoms in children

The importance of early detection and prevention in response to childhood anxiety is increasingly gaining academic support (Yatham, Sivathasan, Yoon, Da Silva, & Ravindran, 2018). Barrett, Farrell, Ollendick and Dadds (2006) noted an increase in studies geared towards the prevention of childhood anxiety disorder symptoms based on the potential of prevention interventions to positively affect incidence and prevalence rates with good evidence for the prevention of anxiety disorder symptoms (Mendelson & Eaton, 2018). The World Health Organisation (WHO) project summary on the prevention of mental illnesses (Hosman, Jané-Llopis, & Saxena, 2005) argues that the development of effective prevention programmes for children is politically, ethically, and professionally warranted. Reviews of prevention programmes suggest small but significant effects on reducing elevated anxiety symptoms (Johnstone et al., 2018; Stockings et al. 2016; Werner-Seidler, Perry, Calear, Newby, & Christensen, 2017). Elements that have been found to moderate the effectiveness of prevention interventions include the provider type and the use of CBT-based interventions, whereas programme duration, participant age, gender and type of prevention have not been found to influence outcomes (Fisak et al., 2011). Neil and Christensen (2009) in their systematic review of 27 RCTs revealed that CBT-based prevention programmes were marginally more effective than other interventions. However, studies report variable outcomes for the effectiveness of CBT-based preventions for childhood anxiety, which may be caused by process variables instead of intervention content, for example rapport with the intervention facilitator, fidelity of programme delivery, level of participation and acceptability of programmes (Stallard, 2010).

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Research studies on the treatment of childhood anxiety disorders have provided insights into the underlying mechanisms of anxiety and have demonstrated effective approaches that may be applied to prevention (for example Pella et al., 2017). Barret and Turner (2004) explain that it has been, for example, established that avoidance is key to the development and maintenance of anxiety disorders in children and that an effective response entails relaxation training, cognitive training and graded exposure. This knowledge is applied to the development of interventions where the scope is not treatment, but prevention. Stallard (2010) distinguishes between CBT-based treatment and prevention. In CBT-based prevention, a standardised approach, based on the theoretical principles of CBT, is implemented to build skills and to enhance coping with current and future anxiety-provoking situations. This is different to CBT-based treatment that involves a detailed, in-depth exploration of personal anxiety disorder-related problems, as well as its onset and maintenance in case formulation and subsequent treatment (Stallard, 2010). One of the potential, successful approaches to CBT-based prevention interventions involves enhancing and multiplying potential protective factors (Barret & Turner, 2004). In the current study, children have been identified as at risk for the development of elevated levels of anxiety symptoms based on findings in similar contexts (Burkhardt & Loxton, 2008; Burkhardt et al., 2012; Burkhardt et al., 2003; Cortina et al., 2013; Loxton, 2009; Zwemstra & Loxton, 2011; Muris, Du Plessis, & Loxton, 2008; Muris et al., 2006). However, children have also been identified according to multiple risk factors associated with the development of childhood anxiety. The approach to prevention, in this context, should thus focus not only on the implementation of CBT-based strategies in efforts to build anxiety management skills, but also on the identification and development of protective factors, such as problem-solving and coping skills, internal locus of control, social skills and self-esteem as suggested by for example Barret and Turner (2004).

FRIENDS is a manualised programme adapted from the *Coping Cat* treatment intervention (Kendall, 1994) and has been widely applied and evaluated as a prevention intervention for childhood anxiety. It focuses on the application CBT principles as well as the development of protective skills and competencies to manage situations that evoke fear or anxiety (Barret & Turner, 2004). Additionally, in some versions it incorporates family and interpersonal approaches that focus on the development of social support and interpersonal skills. An example of this is a FRIENDS programme protocol that focuses on developing family-based protective factors with four 2.5-hour psychoeducational parent workshops that focus on anxiety and the management of childhood anxiety problems (Barrett & Turner,

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2004). Barret et al. (2006) found support for the delivery of CBT as prevention interventions outside of clinical settings and have garnered evidence for the robustness of prevention outcomes for children three years after participation in brief CBT intervention, delivered by school classroom teachers as part of a curriculum. This finding resulted in a call for the continuation of research into potential of multi-level approaches to prevention. The combination of different levels of intervention, such as universal and indicated programs, have the potential to increase the dose of intervention and potentially increase prevention outcomes (Barret et al., 2006). Briesch, Hagermoser Sanetti and Briesch (2010) for example, in their literature study considered the effectiveness of the FRIENDS programme and found that it had a significant and positive outcome in the reduction of anxiety symptoms, the increase of self-esteem and developments of coping skills.

Lenz (2015), in his meta-analysis of the effectiveness of the *Coping Cat* treatment intervention in lowering elevated levels of anxiety symptoms, concluded that *Coping Cat* programmes have considerable potential as standardised prevention intervention responses and argued for a broad application in the prevention of anxiety disorders. In addition, *Coping Cat* interventions have been found to be more effective when delivered in community clinic settings (Lenz, 2015). Urao et al. (2018) further identified a trend for the development of context-specific, country-adapted versions of CBT programmes, such as the *Coping Cat* to be suitable for children in specific countries with promising results in their application of a Japanese prevention version, *The Journey of the Brave* for children aged 10 to 12 years.

Another example is the Dutch version of the *Coping Cat* individual treatment intervention, the *Dappere Kat* intervention that was tailored for group-based indicated prevention of anxiety disorders amongst Dutch children in the Netherlands and was found to be effective when implemented in an RCT (Van Starrenburg et al., 2013; Van Starrenburg et al., 2017).

2.1.3 Child-friendly and developmentally appropriate delivery of CBT anxiety interventions

According to Kendall, Aschenbrand, and Hudson (2003) CBT for anxious children considers both the internal (for example, individual child's information-processing style and emotional circumstances) and external (for example, learning process and models) environment of a child. CBT for anxious children usually contains *psychoeducational skills training*, including affective and somatic response recognition, cognitive restructuring, relaxation, problem solving; and *exposure* which research has indicated to be crucial for efficacy (Crawley et al.,

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2013; Suveg, Sood, Comer, & Kendall, 2009). Kendall et al. (2003) explains CBT's view on the *interconnectedness of both a child's internal and external environments* in the development of anxiety. He expounds that anxiety in children involves internal responses: behavioural avoidance, cognitive misinterpretation of threat in a predictable environment and an inability to modify emotive responses. The external influences may, for example, materialise in the form of parents who facilitate avoidance by reinforcement or modelling (Kendall et al., 2003). CBT is designed to address both the internal (cognitive, emotive and behavioural) elements and the external (social and learning) elements of anxiety symptoms and to consider context-specific variations in the potency of each of these elements when interventions are formulated (Kendall et al., 2003). The influence of the child's social environments should be a fundamental consideration in CBT for children as peers, friendships and family may contribute significantly to the development of successful, meaningful interventions (Kendall et al., 2003; Stallard, 2002).

CBT originated as a treatment response for adults that has been reformulated for children (Huberty, 2012). Interventions for child anxiety have till recently also focused mainly on behavioural change with far less emphasis on cognition that is usually included in adult interventions (Cartwright-Hatton, Reynolds, & Wilson, 2011). It is suggested that research efforts should refocus on the *cognitive component and its complexity* at various developmental stages in children (Cartwright-Hatton et al., 2011). Basically, the cognitive component of CBT aims to enable a child to identify anxious cognitions to moderate their anxiety symptoms (Muris, Meesters, & Melick, 2002). There is a concern though that children *may lack the required cognitive-linguistic proficiency* for CBT-based interventions (Suveg et al., 2009), which may be addressed by exploration of their ability to recognise, label and express emotions correctly (Crawley, Podell, Beidas, Braswell, & Kendall, 2010). This information is especially important in under-researched communities of children and was obtained in two studies by Human (2018) and Webber (2016). Human (2018) and Webber (2016) determined that children in the South African context may exhibit the cognitive-linguistic ability to engage with CBT-based concepts, should child-friendly and developmentally appropriate methods be applied. This is in line with the suggestion by Stallard (2002) that a *child-friendly approach may enhance the accessibility* of especially the more demanding cognitive components. Examples of child-friendly, non-threatening and engaging methods for the delivery of CBT content include amongst others, games, storytelling and pictures (Stallard, 2002).

The qualities of the *therapeutic relationship* (or for the current intervention study: the

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facilitative relationship) are vital to the child-friendly and developmentally sensitive delivery of CBT to children (Kendall et al., 2012). The facilitative relationship must be warm, trusting and supportive (Stallard, 2002). Even though limited research has been conducted on this element of child CBT, the importance of the facilitative relationship in encouraging participation, attendance and engagement in both sessions and complete programmes is established (Stallard, 2002). Children who reported a strong bond with the programme facilitator may also have better outcomes following participation (Cummings, Caporino, Settipani, Read, & Compton, 2013). A facilitative relationship is collaborative (Kendall et al., 2012; Podell et al., 2013; Stallard, 2002), is pitched at the correct developmental level (Podell et al., 2013), entails creativity and empathy, allows children to gain insight first hand by investigating and experimenting with new explanations and skills (Muris, 2002) are associated with better outcomes. These child-friendly and developmentally sensitive approaches foster self-efficacy, are enjoyable and enhance active involvement in sessions (Kendall et al., 2012)

Exposure, another important component of CBT associated with its effectiveness, entails continuous monitoring of anxiety levels in response to a feared object or situation (Muris, 2007). Exposure has been proven to be effective in reducing elevated levels of anxiety symptoms in children (Kendall et al., 2005) and may be applied in a number of formats, such as systematic desensitisation during which exposure is paired with relaxation and modelling during which children observe non-anxious responses to a feared object (Muris, 2007). Although some may express concerns with exposure in interventions for children, Kendall et al. (2005) suggests that creative adaptations will result in accessible, achievable and helpful exposure for children.

Stallard (2002) outlines seven *core characteristics of CBT suited to children*: it is (1) a theoretical framework of a consistent and balanced approach; (2) a collaborative and empowering intervention in which children are actively engaged and supported by facilitators, (3) brief and time limited, (4) structured and objective with clearly defined goals, (5) focused on immediate problems, (6) interactive, engaging and informative, and (7) it is skills-based and practical. Kendall et al. (2003) advise that both the structure and content of CBT sessions must be adapted to the developmental level of children, and Nelson and Tusaie (2011) posit that the developmentally appropriate modification of CBT is vital in formulating effective responses. Cartwright-Hatton et al. (2011) argue that careful and sensitive consideration of developmental strengths rather than weaknesses may allow children to acquire advanced skills at younger ages than assumed probable. CBT's effectiveness in

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response to childhood anxiety depends on materials that are pitched at the right developmental level (Stallard, 2005).

It has been demonstrated that children's understanding of their own cognitions, emotions, behaviours and their interconnectedness develop quickly at the age of 6 -7 years (Quakley, Coker, Palmer, & Reynolds, 2003) and that there is no developmental difference between anxious and non-anxious children in terms of this understanding (Quakley et al., 2003; Reynolds, Girling, Coker, & Eastwood, 2006). However, abstract concepts and strategies applied in CBT-based programmes for children may need to be simplified and presented in accessible age-appropriate formats that may for example include more visuals or simple metaphors (Stallard, 2005). Interestingly, pre-adolescent children have been found to prefer active over cognitive, abstract coping strategies (Harter,1988, cited in Grave & Blissett, 2004) and it is suggested that children may require more active facilitator engagement and consideration of pacing, content and speed of delivery (Stallard, 2005).

With this mandate to consider the importance of development in formulating CBT-based interventions for anxiety problems in children, a number of developmental theories have been consulted and presented in Chapter 3. The aspects of these theoretical perspectives as they relate to children between the ages of 9 and 14 (the target age group of the current study) and to the implementation of CBT-based interventions with children within these developmental stages have been presented.

2.1.4 Group or individual CBT interventions: Does it make a difference?

CBT for childhood anxiety typically entails either individual (ICBT) or group (GCBT) delivery. An important question to answer is: does it make a difference which one is used? Even though many CBT interventions were originally designed for use with individual children, it is suggested that the adaptation from individual to group delivery is quite successful (Albano & Kendall, 2002). CBT as treatment for childhood anxiety has been proven efficacious in both an individual and group format (La Greca & Landoll, 2011). Additionally, a number of studies have found no significant differences between individual and group formats (Flannery-Schroeder, Choudhury, & Kendall, 2005; James et al., 2013; Wergeland et al., 2014). Crow and McKay (2017) in their review of CBT for childhood anxiety found that ICBT and GCBT both delivered medium-to-large effects, again indicating no real difference in outcome. Furthermore, Higa-McMillan et al. (2016) established that the observed diagnostic recovery rates for ICBT (59%) and GCBT (62%) were similar. Wergeland et al. (2014) made the point that even though a number of studies between 2000

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and 2008 compared ICBT with GCBT found no significant differences between the two treatment modalities, most studies comprised sample sizes too small to truly test for significance.

Since it has been established that the status quo on ICBT and GCBT is currently that researchers and practitioners can choose between two equally successful approaches, and that future research may either support or contradict these findings, what makes the difference in choosing at present in the current study? The choice may be pragmatic (McKinnon et al., 2018). For one, group formats are cost-effective (Wergeland et al., 2014) as one therapist or programme facilitator can reach a number of children at the same time. This will increase accessibility of services and augment the potential reach of the programme. GCBT for childhood anxiety offers a number additional advantages over ICBT, such as resource-effectiveness and social support. (Friedberg, 2007), and the opportunity for peer normalisation, positive peer modelling and reinforcement (Wolgensinger, 2015). Norton and Kazantzis (2016) consider group cohesion an important, possible benefit to GCBT as it has been linked to improved outcomes and argue that more research should attempt to elucidate the conditions optimal for either ICBT or GCBT as, for example the type of diagnosis may determine the superiority of one over the other.

All in all, the current consensus is that future research is required on the question of which approach may be superior in its response to childhood anxiety. For the purpose of the current study, the benefits of (1) evidence in support of its effectiveness and (2) additional benefits of GCBT, such as cost-effectiveness, make it the obvious choice for the delivery of an anxiety prevention intervention programme in an under-resourced context.

2.1.5 To include or not to include: the role of parents in CBT interventions for childhood anxiety

An important consideration in the delivery of CBT to anxious children is whether to include parents (Breinholst, Esbjørn, Reinholdt-Dunne, & Stallard, 2012). If you draw on Bandura's (1977) social learning theory (kindly refer to Section 3.3.2), children may develop elevated anxiety symptoms via modelling and observation of parental anxiety, as well as Vygotsky's (1986) socio-cultural perspectives (kindly refer to Section 3.2.2) that propose the importance of social interaction (with parents) in the development (of anxiety), the importance of including parents in CBT appears to be evident. Breinholst et al. (2012) support this view and suggest that parental over-involvement, over-control, negative interactions, and assumptions and beliefs contribute the development of child anxiety problems. For this reason, the

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inclusion of parents is suggested in CBT interventions.

As such, parents may assist in the implementation of intervention activities and components and benefit from psychoeducation. Currently, the key aspects of parental involvement in CBT include the modification of parental views and actions in response to their child's anxiety and the development of parental skills to manage their own anxiety (James et al., 2013). Manassis et al. (2014) highlight potential benefits of parental involvement, such as the potential generalization of skills to real-world situations (Barmish & Kendall, 2005) and the potential ongoing application of skills learned in CBT beyond therapy (Ginsburg, Silverman, & Kurtines, 1995).

However, a number of studies have indicated the equitable success of CBT-based interventions with or without parent involvement (Thulin, Svirsky, Serlachius, Andersson, & Öst, 2014). Higa-McMillan et al. (2016) found similar diagnostic recovery rates between CBT with parental involvement (68%) and without parental involvement (64%). Crowe and McKay (2017) in their review of efficacy studies of CBT for anxious children, found small (often insignificant) effect sizes between CBT with and CBT without parents, indicating that at least as far as can be determined at present, there is minimal difference between the two. Although Manassis et al. (2014) confirms the lack of evidence in meta-analytic studies in support of parental involvement in CBT, it is pointed out that there is very little variety in the types of parental involvement included suggesting that perhaps it is not that parental involvement serves no purpose, but that the type of involvement that will enhance outcomes has not been fully identified (Breinholst et al. 2012). Despite this argument, none of the types of parental involvement evaluated in the metanalytic study by Manassis et al. (2014) resulted in enhanced outcomes over no involvement.

Considering the current lack of evidence in support of parental inclusion in CBT for child anxiety, as well as the context of the current study in which family composition is diverse, both parents and / or caregivers work long, inconsistent hours, many children do not live with their parents due to distance, poverty or parental illness and death, and caregivers are already stretched in their capacity to care for additional dependents, the cost of inclusion may outweigh the benefit.

2.1.6 Fidelity vs flexibility – the use of manualised interventions

Initially the suggestion for the use of manualised versions of effective and efficacious mental health treatments was met with controversy (Ollendick & King, 2004). However, two important reasons were proposed in support of this application. Firstly, in programme

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evaluation studies, the resultant standardisation allows for the evaluation of intervention integrity - whether a treatment was delivered as intended. Secondly, a manual allows all stakeholders and researchers access to the components of the intervention so that further exploration of the aspects responsible for effectiveness can be elucidated and researched (Ollendick & King, 2004). Importantly, CBT has generated a large variety of interventions, geared towards both prevention and intervention, and manualisation allows us to move beyond efficacy towards identifying which versions of CBT are effective (Ollendick & King, 2004).

Ollendick and King (2004) define a manual in CBT as a guide that describes intervention procedures and strategies based on a theory of change. Marshall (2009) outlined the scope of use of manuals as 1) the provision of a theoretical framework, 2) the structuring of session number and sequence, 3) the stipulation of session content and objectives, and 4) presentation of implementation procedures to achieve session objectives. Kendall et al. (1998) warn that although manualised programmes operationalise interventions, it is the delivery skill of the programme facilitator that is most important. A major concern in the manualised application of treatment interventions is the potential influence on flexibility, individualization and the disorder-specific nature of manualised programmes (Truijens, Zühlke-van Hulzen, & Vanheule, 2018). Additionally, van Doorn, Jansen, Bodden, Lichtwarck-Aschoff and Granic (2017) argue that findings from studies that explore the application of manualised interventions in which prescriptions of content, structure and sequence of CBT delivery are strictly applied, do not suggest superiority over non-manualised treatments. Truijens et al. (2018) systematically reviewed empirical evidence from studies that both directly or indirectly evaluated the effectiveness of manualised programmes in comparison to non-manualised treatments and was not supported as more effective.

Beidas et al. (2010) address concerns over flexibility and argue for flexible delivery within adherence to fidelity. They propose that manuals be considered frameworks from which deviation in practical implementation is permitted, based on the immediate requirements of both the therapist and the child (i.e. individualisation). Kazdin (2015) has also found effectiveness in manualised treatments in response to co-morbid disorders, indicating the potential general application of manualised interventions. Kendall and Frank (2018) argue for the importance of adhering to manuals and using the protocol stipulated in them to guide decisions, facilitate training and to ensure integrity of the programme delivery. However, implementation evidence suggests that manualised interventions should be flexibly

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implemented whilst maintaining fidelity in practice and research settings (Kendall & Frank, 2018).

2.1.7 New directions in the application of CBT for childhood anxiety problems:

Brief, intensive and concentrated CBT for the treatment of childhood anxiety

Cognitive-behavioural treatment has produced a now considered traditional and effective form of intervention for anxiety disorders in children (Elkins, McHugh, Santucci & Barlow, 2011). This form of intervention, which may be implemented either towards treatment of existing anxiety disorder or towards the prevention of disorder in children with elevated levels of anxiety symptoms, has traditionally entailed a delivery over 9 to 18 weeks (Öst & Ollendick, 2017). However, limitations to the dissemination and implementation outside academic settings due to the length and cost of treatment and the lack of resources, reduces access to CBT-based services (Elkins et al., 2011; Storch et al., 2007). Alternative models and creative modifications that remove access barriers and improve transportability need to be considered with one option the adaptation of traditional delivery formats to fit with intervention settings (Bekker, Griffiths, & Barrett, 2017; Elkins et al., 2011; Storch et al., 2007). Increasingly, researchers are considering newer delivery formats - brief, intensive and concentrated forms of intervention (Bekker et al., 2017; Storch et al., 2007) to enhance compatibility of interventions with real-world contexts, which are defined as follows: *brief interventions* have markedly fewer sessions than traditional formats, *concentrated interventions* deliver multiple sessions per week over a shorter period of time and *intensive interventions* are both brief and concentrated (Öst & Ollendick, 2017). Santucci, Ehrenreich, Trosper, Bennett, and Pinctus (2009) further state that brief and intensive models of delivery for children may be more developmentally sensitive and that creative modifications to the delivery of intervention components should consider the developmental, social and cultural contexts of the children for whom the intervention is designed. This may, on a practical level, consider what model of delivery will ensure engagement, motivation and satisfaction in participating children, will fully address their social context in terms of accessibility and resources in order to ensure that participation is possible, and also to consider cultural context in terms of which delivery models best fit with the community's attitudes and practices.

Öst and Ollendick (2017) in their meta-analysis of 23 RCT studies where such newer delivery formats had been tested found a number of advantages of brief, intensive and concentrated (BIC) interventions: BIC were associated with lower attrition rates of 2.3% as opposed to traditional delivery formats that present attrition rates of 6.5%. BIC comparisons

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with wait-list and placebo control groups produced significant differences, BIC (54% / 64%) remission / recovery rates were comparable with traditional delivery formats (57% / 63%) and were significantly higher than placebo groups (26% / 35%), and found potentially higher effect sizes for BIC, particularly for intensive rather than traditional delivery formats, and finally BIC studies revealed maintenance of effects up to 12 months post-intervention. Storch et al. (2007) compared intensive (daily) with traditional (weekly) delivery of 14 sessions of a CBT intervention, and found that the intensive delivery had an advantage of 75% remission compared to 50% remission in the traditional delivery immediately after the intervention; however both delivery modes maintained effects at 3-months post-intervention with no significant difference between the two. Furthermore, 90% of the participants who were in the intensive programme responded to treatment compared to 65% of weekly group participants (Storch et al., 2007), indicating potential effectiveness of an intensive CBT-based approach in children child anxiety (Bekker et al., 2017). Additionally, Öst & Ollendick (2017) found good feasibility and acceptability rates with 94% recruitment and only 2% withdrawal from such studies, and interestingly they found a trend towards better response in girls than boys, as well as in older than younger children, and that parent involvement was inversely related to outcomes amongst newer BIC treatment delivery models. Bekker et al. (2017) consider the promise of BIC to reduce demands on resources and time whilst potentially offering outcomes equivalent to standard delivery formats.

Disadvantages to the BIC delivery model include the possible necessity of removing children from schools for a couple of weeks and obtaining commitment from family and schools to allow this time away from other duties (Öst & Ollendick, 2017; Storch et al., 2007). However, Elkins et al. (2007) present the delivery of intensive interventions in the form of camp-like holiday programmes that can overcome such barriers as they are potentially highly compatible with children. Although these approaches yet need full scale research, post-intervention findings indicate significant decrease of symptoms in children with sub-clinical anxiety levels which are maintained over time as well as high levels of treatment satisfaction (Elkins et al., 2007). Additionally, Santucci et al. (2009) argue that the group format of an intensive holiday, camp-like delivery may enhance outcomes, and it may also resolve financial, logistical and geographic barriers. Elkins et al. (2011) and Whiteside, Brown, and Abramowitz (2008) suggest intensive delivery formats enhance accessibility for rural children, with Elkins et al. (2011) suggesting delivery in recreational after-school environments accessible to children. Importantly, Elkins et al. (2011) call for enhanced evaluation of moderators and mediators of intervention outcomes, such as parental

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involvement, the need for clinician contact, the effectiveness of non-clinician / expert delivery, the role of age, gender, culture, socio-economic status and the need for cross-cultural modifications for non-Western contexts in order to further focus on the creative adaptations to intensive, context-specific delivery models.

A number of advantages are associated with BIC, such as enhanced reach and efficiency, and reduced demand on resources which in turn could enhance dissemination. The number of sessions and time period required for delivery are reduced, which means that children and their parents need not commit to lengthy, resource-consuming (time, travel) processes and the intervention may be completed within a week (Öst & Ollendick, 2017). Also, BIC delivery formats may be cost-effective and reduce attrition as for example distractions or commitments outside sessions may have fewer opportunities to interfere with attendance and completion, and outcomes may be enhanced by intensive practise of skills learnt. Craske, Liao, Brown and Vervliet (2012) argue that exposure sessions are most effective if delivered closely together with multiple exposures, thus further support for intensive delivery of CBT programmes. Öst and Ollendick (2017) argue that BIC intervention delivery formats may indicate a shift in the paradigm treatment delivery services to children with anxiety disorders. It is the argument of the current study that since CBT-based child anxiety prevention intervention programmes are traditionally based on advancements and developments in treatments (kindly see Section 2.1.2), newer forms of treatment that show promise should be considered transferable to prevention. Additionally, BIC CBT offers a number of potential advantages in the delivery of a prevention intervention in community contexts that present numerous logistical issues that will impact negatively on feasibility and acceptability. Finally, the potential benefits to the effectiveness of exposure (proven essential to child anxiety interventions) delivered in this format and the preliminary findings of promising effects on lowering elevated levels of anxiety support the argument for consideration of BIC in prevention research. In conclusion, Bekker et al. (2017) underscore the need for research on alternative formats of CBT prevention in developmentally and culturally diverse contexts, because of the importance of reaching more children by means of accessible, effective interventions that overcome context-specific barriers.

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2.2 Culture and context matter

2.2.1 Positioning culture in intervention research

Swartz (2014) argues that "we cannot separate thinking about methods in psychology from thinking about the broader politics of what we do - the political role of psychology as a discipline," (p. 45). This quote essentially summarises a beginning to the conversation in the current study about culture in cross-cultural research, as we cannot as researchers ignore the importance of positioning and how it affects, as Swartz (2014) argues, our understanding of others and their contexts. It is important to state the position of the researcher and the position of the research participant and to maintain awareness of the multiple ways in which the cultural positioning of the researcher influences the research process (as suggested by Khawaja & M⊘rck, 2009). In an effort to accomplish this, the researcher (forthwith in this section: 'I') recognises her position as an outsider and consequently participated in efforts to "learn" the priority population as much as she was able to by immersion in their context, observation, consultation and reflection on the potential impact of her otherness on the research process and particularly on the child participants of this study.

A consideration of my own cultural and contextual heritage here is not so much a confessional to try to legitimise my attempt to represent in a small way a group of children whose lives I haven't lived, whose stories I haven't experienced and whose realities I will never truly comprehend. Admission of my white, middle class, educated context does not in any way truly reflect the degree to which I am entitled to this research project, but it does clear the assumption of ignorance of the immense responsibility that is associated with representation in cross-cultural (or as I prefer, cross-contextual) research. It further allows me reflexivity and the reader insight into my motivations, my own struggles with the research process and an awareness of how my perspectives may have influenced the outcomes of the study.

I am the child of a father who was abandoned by his parents (an alcoholic father and too-young mother who fled her marriage) and who was 'adopted' and raised in his formative years by a Xhosa family in their dwelling on his father's farm until authorities intervened when he was of school-going age and was unable to speak either English or Afrikaans. I am also the child of a mother whose German father was so intensely ashamed of his Nazi heritage that he refused to return to Germany in the 70 years that he lived in South Africa and who was forcibly removed to a South African prisoner-of-war camp during World War II due to the potential threat he posed, an event that resulted in him leaving an already mentally ill wife alone and impoverished - she committed suicide four years after my mother's birth.

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These personal legacies of politics, culture, race, mental illness and childhood have collectively been passed to me by parents who were in their small ways activists against the Apartheid regime (I have memories of a 7-year-old little girl who is sworn to secrecy after discovering a box filled with anti-apartheid materials ready for distribution). I recognise that this does not in any way enable me to understand without challenge the culture and context of my participants - farmworker children and parents in the Western Cape of South Africa - but it may allow the reader to understand the sincerity of my concern with representation. Personally, as a white South African woman who speaks Afrikaans and English, I have been subjected to misrepresentation due to an assumed culture based on my race. However, my privilege in this assumed culture has been that I have always had the power, authority and freedom to challenge or even ignore this misrepresentation. As an adoptive mother of a 'coloured' South African child, I have learned more clearly that this is not the case for everyone as despite the sense of empowerment I have attempted to transfer to him, he faces misrepresentation often, but I am also painfully aware of his enhanced power to challenge and ignore it because of his middle-class context. As a teacher of 12 years, I am also aware of the importance of context and positioning in working with children who are inherently more vulnerable but also have the potential for resilience when they are encouraged to focus on their strengths and braveness within their challenging contexts. This is, hopefully, a reflection of my position in the current study, which I believe has its strengths and its weaknesses.

It terms of my positioning of the participants of the current study, I state my full awareness of the politicised history of marginalisation, discrimination and oppression associated with the term 'coloured', and the current movements in terms of 'coloured' or 'brown' identity that have not yet translated into policy with official South African demographic classifications unchanged. Therefore, within the scope of this study, references to the classification of race are presented minimally and only as demographic contextual detail. It is understood that it is beyond the scope of this dissertation to pursue current academic debates of 'coloured' identity in the South African context, but that it is extremely important that any references to this classification should in no way contribute to further marginalisation of the dynamic community within which the research study took place. Additionally, the reference to 'disadvantaged' is also understood in its potential to pathologize the context of the participants in the current study due to the struggles associated with a low socio-economic status and socio-historical context. Acknowledgement of this context should not in any way take away from the pride and strength of the community involved.

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I hope that the remainder of this dissertation will continue to position race, culture and context as non-interchangeable or fixed, and that my awareness of the limitations related to these positionings will translate into a sensitive and respectful report of the study participants and process, as I feel that the limitations of ignoring these positionings as if they do not matter are far greater.

2.2.2 Cross-cultural issues in the study of childhood anxiety

Much of what we know about childhood anxiety stems from research in Western contexts (Essau, Anastassiou-Hadjicharalambous, Demetrio, & Pourseied, 2013). The global contextual study of psychopathology allows for the identification of genetic, neurobiological and environmental determinants of variation in the expression of anxiety, for example, from several cultures who report varied levels of anxiety and depressive symptoms (Charman & Pervova, 1996; Ollendick et al. 1996; Stewart et al. 2004; Stevanovic et al., 2017). Marques, Robinaugh, LeBlanc, and Hinton (2011) further highlight the unknown cause of the variation in prevalence rates of anxiety disorders across cultural groups. Differences in prevalence may suggest real differences in anxiety disorder rates across various countries, contexts and cultural groups, suggest context-specific risk factors for the development and maintenance of anxiety disorders, or relate to measurement difficulties characteristic to cross-cultural research (kindly refer to Section 2.2.5 below for a review of the literature) (Marques et al., 2011).

Importantly, the appearance of psychopathology may vary across cultures (Koydemir & Essau 2018) with current diagnostic criteria failing to identify culturally determined presentations of anxiety disorders, possibly resulting in the underestimation of prevalence rates in non-Western cultural contexts. Importantly, Marques et al. (2011) argue that the impact of lower socio-economic status (SES) and other forms of contextual difficulties in developing countries that require a more critical consideration of the definition of ‘excessive worry and anxiety’ as these responses may be considered appropriate in these contexts. Therefore, it may be argued that cultural, racial, and ethnic contexts are vital to the understanding of the degree and expression of anxiety disorder (Hofmann, Anaani, & Hinton, 2010). La Greca, Silverman and Lochman (2009) call for attention to diversity and the representation of minority child and adolescent groups in intervention research in an effort to address inequalities in access to mental health care.

Relevant to the current study, one study has explored the psychological wellbeing of rural children in a disadvantaged South African context and identified some context-specific

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trends, including the presence of more negative cognitions when compared to children in countries with a high socio-economic status (Cortina et al., 2016). This finding led to the suggestion that CBT holds promise in improving mental health and promoting resilience with its focus on the modification of cognition (Cortina et al., 2016).

2.2.3 The cross-cultural use of CBT

Hays (2006) warn that ethnicity and culture are often ignored in psychological research on CBT and that minority groups are often not represented due to a lack of first-hand context-specific experience amongst researchers. This, unfortunately reinforces the prominence of dominant cultural values and perspectives that may be at odds with minority groups, sub-cultures or those who live in different countries where consideration of culturally-bound differences in these perspectives really need to be taken into account (Rathod, Phiri, & Gobbi, 2010). It is a mistaken viewpoint that CBT is not subject to a system of values since its focus on observable behaviours, cognitions, logic, verbal skills, and rational thinking is part of a cultural perspective (Hays, 2006). Hays (2006) highlights practically the problem with ignoring culture in the following example: if the **"**social and therapeutic emphasis is on assertiveness in social interactions (i.e., over subtlety), change (over patience and acceptance), personal independence (over interdependence), open self-disclosure (over cautious protection of one's family reputation) …" (p. 4) then it is apparent that an approach like this will not be appropriate for contexts where these qualities are discouraged. CBT may, for example, overlook spirituality which can influence the process of change that forms part of intervention (Hays, 2006).

An important element to culturally sensitive CBT is to consider researchers' and facilitators' lack of knowledge or understanding regarding children's context and to address it by obtaining the necessary information, immersion in the culture and consultation with community members or specialists from the community to develop a cognitive-cultural schema (Hays, 2006). Additionally, cultural adaptation should not be applied homogenously as variations in social, socio-economic, educational, occupational, religious / spiritual contexts are not shared by all members or even sub-cultural groups with similar ethnicity (Aguilera, Garza, & Muñoz, 2010). Importantly, CBT has failed to frame culture as part of the individual's environment or alternatively culture has been framed as negative whereas the cultural environment, with both its negative and positive elements, should be considered and can include psychosocial stressors, such as discrimination, extreme poverty, inadequate housing, healthcare and social services, etc. and psychosocial support such as extended

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family, traditions and rituals, recreational activities, etc. (Hays, 2006). Identification and inclusion of culture in CBT communicates respect, improves the facilitative relationship and identifies strengths in the individual's environment (Hays, 2006). Culture should not be ignored when working with the component of cognition in CBT and it is suggested by Hinton and Patel (2016) in their transcultural model of the aetiology of anxiety that culturally determined thinking about symptoms contribute to the development of anxiety, for example and that culturally sensitive approaches are vital to the delivery of CBT . Culture is vital to understanding and shaping cognitions and their processes. It influences definitions of mental health, adaptive and maladaptive behaviour, acceptable and unacceptable coping behaviours and expression of emotion. Cognitive restructuring that creates dissonance with cultural values and practices may not be relevant or acceptable and may affect credibility and trust of the intervention (Hays, 2006).

Hays (2006) warn that a danger inherent to CBT is the erroneous conceptualisation of distress as resultant of dysfunctional cognitions when it is resultant of environmental problems (such as abuse, racism, violent crime) – as CBT runs the risk of encouraging adaptation to such an environment and may create a sense of blame in the individual if the context is not fully understood. Therefore, it is imperative to apply guidelines that assist in the cross-cultural application of CBT as cultural differences can greatly influence the process of intervention (Naeem, Gobbi, & Kingdon, 2009). Adaptations have been suggested by Hays (2006) to enhance cross-cultural sensitivity in the application of CBT. The following steps are suggested: (1) information gathering regarding a new culture and its context, (2) preliminary adaptation design to facilitate changes towards enhanced cultural sensitivity, (3) preliminary adaptation tests to evaluate accuracy of changes and (4) adaptation refinement based on findings in step 3 (Naeem et al., 2009). Naeem et al. (2009) highlight frameworks to consider in cross-cultural application of CBT, such as communication and the therapeutic relationship, cultural issues and beliefs about mental health, its causes and treatment, orientating individuals to the intervention, the influence of religion, spirituality, age and gender on the expression of distress.

2.2.4 Considering cross-cultural adaptation in the transcultural application of interventions

The contextual and cross-cultural adaptation (CCA) of evidence-based psychological interventions to enhance relevance and fit within a new context is of great importance in the transcultural application of interventions developed by and within Western contexts. The

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methodology and procedures applied in the process of CCA should be comprehensive, systematic and consistently reported (Mejia, Leijten, Lachman, & Parra-Cardona, 2017). However, there is a proliferation of methods and procedural guidelines that suggest a number of steps and frameworks to the CCA of existing, evidence-based interventions.

Although, different frameworks suggest varying approaches and procedures in the CCA of intervention programmes (kindly refer to Section 1.4.5) , common threads can be extracted, such as the implementation of community-based consultations, choosing interventions best suited to a new context and piloting of core intervention components before and during adaptation activities, consultation with experts in order to balance appropriately the cultural fit of the adapted intervention with fidelity to core intervention components, training of research personnel and intervention facilitators in both the delivery and evaluation of CCA interventions, and piloting adapted intervention programmes and materials post-adaptation to evaluate feasibility, acceptability and impact (Card et al., 2011; Castro et al., 2004; Davidson et al., 2013; Wingood & DiClemente, 2008).

Furthermore, it is argued in the current study, that procedures may be organised under the broad frameworks suggested by Resnicow, Soler, Braithwaite, Ahluwalia, and Butler (2000) and refined by Ferrer-Wreder, Sundell, and Mansoory in 2012 in their *Stacked Intervention Adaptation Model*. Under this model, CCA procedures fall under two organising frameworks: *Deep Structure Adaptations* that influence the intervention impact or effectiveness and *Surface Structure Adaptations* that influence feasibility and acceptability of an intervention in a new context. Deep structure adaptation refers to examining the transferability of theory-based mediators considered responsible for intended changes to a new context and may include adaptation of theoretical components to fit with a new context, such as adaptations in intervention content and structure. Surface structure adaptation refers to the fit, acceptance or face validity of an intervention and includes adaptation of elements of intervention presentation, such as language, intervention messages, materials, activities, mode and location of delivery, for example. Under the organising framework outlined, various approaches, steps and procedures are available to implement both surface and deep structure adaptations.

Davidson et al. (2013) suggests that the adaptation process should be collaborative in nature, combining the expertise and knowledge of both research and community members. The first steps should include exploratory work with community members within the intended population in order to ascertain what elements of the original programme may be useful and applicable. Areas to be explored in such a collaboration would be: 1) the definition

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of relevant goals, 2) the evaluation of age, gender and socio-economic status, 3) the development and adaptation of fitting measurement instruments, 4) the compatibility of the existing programme materials and potential facilitators with cultural values and characteristics of the community (Davidson et al., 2013). On a practical level, the cross-cultural adaptation of programme materials involve altering the appearance of materials to include images, characters and scenarios that are representative of the intended population group, the adaptation of language beyond translation by considering interpretation of translated materials and concepts, useful vocabulary, literacy level as well as the inclusion of appropriate media sources (Davidson et al., 2013). In addition to this process, community members (including parents, teachers and social workers) should be consulted via focus groups or interviews in order to ascertain whether the intervention messages are in line with the social and cultural values, preferences, norms and contexts of the intended population, and whether intervention goals may be adapted and correspond to population resources and cultural practices (Davidson et al., 2013). Davidson et al. (2013) advocate consultation with both parents and children in the process of adaptation of child-based intervention programmes as a means of determining preferred and suitable delivery formats. This is achieved by exploring the effect of 1) gender, cultural, structural, financial and emotional barriers, 2) incentives, timing and setting, and 3) activities based on preferred methods of communication and learning (for example group vs individual sessions) on delivery.

Aarons et al. (2012) highlight that planned adaptations may include: reorganising, excluding or postponing certain components; and de-emphasis, emphasis or augmentation of components, in addition to linguistic and culturally-specific adaptations. Wingood and DiClemente (2008) developed the Adapt-ITT model to structure the process of cross-cultural adaptation of existing intervention programmes. This model consists of 8 phases of adaptation: 1) *Assessment* which includes consultation with relevant community representatives in order to conduct a needs assessment, 2) *Decision* which involves a review of existing intervention programmes in order to select one that offers the best "fit" with the intended population in terms of process, content and application, 3) *Adaptation* during which participants from the intended population are exposed to sessions that capture the core content of the existing intervention programme, and their response to concepts, content, messages, visual materials, key elements and delivery modes is utilised in the adaptation process, 4) *Production*, a first draft of an adapted version of the existing intervention programme is created whilst balance between fidelity and adaptation is considered, 5) *Topical Experts* who have significant expertise in the content area are consulted, 6)

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Integration of topical expert feedback with adaptation in the formulation of the second draft, which is also tested for readability, 7) *Training* of facilitators, data collectors and assessment staff is done before the final step, which involves the 8) *Testing* firstly in a small pilot study in order to obtain feedback and secondly in a larger experimental study. Kindly refer to Section 1.4.5 for an outline of the practical steps suggested by Card et al. (2011) that were applied in the current study.

2.2.5 Cross-cultural adaptation of evaluation measures

The proliferation of evidence-based intervention research and treatment efforts in response to the growing concern of childhood anxiety, particularly in cross-cultural settings, has underscored the importance of evidence-based, accurate, context-specific screening and monitoring self-report measures for use in multiple settings (Spence, 2018). In responding to the call for interventions geared towards anxiety problems amongst children world-wide, the pressing need for transcultural approaches, such as relevant translation and cross-cultural adaptation (CCA) of self-report screening outcomes measures towards relevant use in multiple research, community and clinical settings, is unmistakeable. Despite the general application of translated and psychometrically tested screening and monitoring self-report measures across culturally diverse research and clinical settings, cross-cultural differences in the prevalence rates and characteristics of anxiety (Achenbach, Rescorla, & Ivanova, 2012; Stevanovic et al., 2017;) mandate reconsideration of traditional methods applied in the transcultural use of existing screening and monitoring self-report measures.

The Spence Children's Anxiety Scale (SCAS-C) and its parent version (SCAS-P), English self-report measures of childhood anxiety originally developed in Australia (Spence, 1997; Spence, 1998), have been translated for use in multiple settings. The SCAS is the most commonly used screening self-report measure for symptoms of anxiety problems amongst children and adolescents (Orgilés, Fernández-Martínez, Guillén-Riquelme, Espada, & Essau, 2016). Translated into 16 languages, the SCAS-C and SCAS-P have evidenced satisfactory psychometric properties with good internal consistency, test-re-test reliability, child-parent correlation, convergent and divergent validity and discriminant validity across several cultures (Arendt, Hourgaard, & Thastum, 2014; DeSousa et al., 2014; Essau, Sasagawa, Anastassiou-Hadjicharalambous, Olaya Guzmán, & Ollendick, 2011; Orgilés, Spence, Marzo, Méndez, & Espada, 2014; Magiati et al., 2017; Spence, 1997, 1998; Spence, Barrett, & Turner, 2003). Notwithstanding the psychometric strengths evidenced by translated self-report measures such as the SCAS anxiety self-report measure, the psychometric and

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semantic equivalence across cultural contexts is problematic. In recent translation and CCA of the SCAS anxiety self-report measure, more comprehensive methods have been implemented (Ahmadi, Mustaffa, Haghdoost, Khan, & Latif, 2015; DeSousa, Petersen, Behs, Manfro, & Koller, 2012; Santo, Ribeiro-Ferreira, Alves, Epstein, & Novaesa, 2015) by means of multiple steps, in addition to translation, to address issues of cultural relevance in translated versions of original scales without compromising construct and semantic equivalence. The SCAS has been translated for use in the South Africa context and has demonstrated usefulness in assessing anxiety amongst Afrikaans-speaking children within a low socio-economic background (Mostert & Loxton, 2008; Muris, Schmidt, Engelbrecht, & Perold, 2002) and has shown moderate to sufficient psychometric properties (Mostert & Loxton, 2008).

It is widely accepted that the usefulness of screening and monitoring self-report measures depends on good psychometric properties (Whiteside & Brown, 2008). Nevertheless, the transcultural application of existing self-report measures requires trustworthy translation and CCA to facilitate meaningful and accurate comparisons and generalisations across contexts (Tuthill et al., 2014). CCA methods must balance the mandate for such general applicability of self-report measures with the importance of recognising individual, context-specific differences (Knottnerus & Tugwell, 2015). Currently debate across disciplines regarding the subject of CCA methods emphasises that self-report measure adaptation should aim for more than accurate translation in the return of data equivalent to that of the original self-report measure (Prudêncio et al., 2015) as CCA allows researchers and practitioners to use existing self-report measures across several languages and contexts whilst minimising demands on cost, time and resources (Epstein, Santo, & Guillemin, 2015a).

Typically, CCA methods include both translation and cultural adaptation of content, followed by content validation via back-translation and expert judgemental feedback (Beaton, Bombardier, Guillemin, & Ferraz, 2000). The use of multi-step approaches to achieve this is deemed integral (Tuthill et al., 2014). However, the application of CCA methods have been varied and inconsistent (Hobart et al., 2013) despite the formulation of translation and adaptation guidelines (Oliveri, Ercivikan, & Simon, 2015). Two bodies which offer such guidelines, the *International Test Commission* (2005) and the *Joint Committee on Standards for Education and Psychological Testing*, emphasise for example the importance of both expert judgemental evidence and statistical testing as part of the CCA process (Oliveri et al., 2015). Even though useful, the effectiveness of such frameworks of self-report measure

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translation and CCA processes has not yet been established (Rios & Sireci, 2014), and the particular challenges associated with the translation and CCA of self-report measures for linguistic minorities in multi-linguistic and -cultural contexts have not been addressed (Oliveri et al., 2015). Oliveri et al. (2015) suggest that guidelines include recommendations regarding types of piloting studies, judgemental reviews and psychometric testing that may be utilised to minimise translation and CCA errors.

Importantly, Epstein, Osborne, Elsworth, Beaton and Guillemin (2015b) argue that the CCA of self-report measures should entail more than translation and back-translation, as literally understanding the words within items is not sufficient to ensure valid and reliable responses. Furthermore, Dowrick, Wootten, Murphy and Costello (2015) argue that the frequency of the use of a self-report measure should not be confused with validation. The validity of self-report measures should be rigorously tested (Hobart et al., 2013) and CCA implemented as an iterative process of adaptation and validation (Epstein et al., 2015a). Yet, validity testing is limited in empirical research and rarely comprehensive as content and face validity are taken for granted after initial test construction. The statistical validation of CCA self-report measures often overshadows expert scrutiny and qualitative evaluation (Hobart et al., 2013). The evaluation of the content validity of CCA self-report measures is of importance as it indicates the degree to which items are relevant and representative of the phenomenon and population under study (McCoach, Gable, & Madura, 2013), which in turn affects the reliability of the data (Polit & Beck, 2006).

Currently CCA methodology does not consistently include non-statistical, qualitative evaluation of validity nor confirmatory evidence following the traditional steps of translation, back translation and expert judgement (Hobart et al., 2013). Importantly, Baxter et al. (2013) and Parkerson, Thibodeaua, Brandt, Zvolensky, and Asmundson (2015) question whether cultural differences in anxiety prevalence rates identified by means of current CCA anxiety self-report measures may be the result of limited validity in diagnostic criteria, cultural biases in the measurement scales and a lack of measurement equivalence (Hofmann, Asnaani, & Hinton, 2010) as opposed to actual differences in levels of anxiety. Therefore, non-statistical, qualitative validation of translated and CCA items in self-report measures becomes an important, yet often missing and inconsistently applied step in CCA. The assumptions that translators are equipped to identify flaws in adaptation, that well-translated self-report measures guarantee cross-cultural validity of scores and that field testing is mostly unnecessary, should be challenged and corrected by the addition of robust expert and

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community-based consultation relating to translated and CCA items (Hambleton & Patsula, 1999).

2.3 Chapter Summary

This chapter reviewed the literature in terms of two broad aspects pertinent to the current study: CBT for anxious children and the importance of culture and context in intervention research studies. Firstly, the researcher considered the evidence for CBT as a probably efficacious treatment of childhood anxiety, followed by a discussion of the movement to prevention CBT-based interventions for vulnerable children at risk for the development of anxiety problems. Literature that informs child-friendly and developmentally appropriate delivery of CBT was presented, followed by research findings on ICBT and GCBT delivery formats, the role of parents in CBT programme delivery and the manualised delivery of CBT. The potential of newer trends in the delivery of CBT – brief, concentrated and intensive programmes – was discussed. Secondly, the researcher considered the importance of context and culture in the current study, which included positioning both herself and the community of children of the current study, a review of cross-cultural issues in childhood anxiety and the cross-cultural use of CBT, and current debates and methodological approaches to the cross-cultural adaptation of interventions and evaluation measures.

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CHAPTER 3: THEORETICAL AND CONCEPTUAL FRAMEWORK

Chapter three outlines the theoretical and conceptual frameworks for the current study. Firstly, the chapter presents the overarching, guiding theoretical and conceptual framework for the current study in the form of Bronfenbrenner's (1977; 1979; 1986) ecological systems theory. The researcher then outlines the cognitive theory of development by Piaget (1972) as it applies to the current study's focus on the developmental appropriateness of interventions tailored for use with children. In addition to this, Vygotsky's (1978, 1986) socio-cultural theory of development is particularly relevant in framing the cross-cultural adaptation of a developmentally appropriate intervention for South African children. The researcher then expounds learning theoretical frameworks: firstly theories of classical and operant conditioning are outlined and linked to CBT approaches to anxiety reduction, secondly Bandura's (1976) social learning theory is considered in its relevance to the transmission of psychoeducational skills to children, and thirdly Rachman's (1977) three-pathway theory of fear acquisition is utilised to create further understanding of the processes involved in the development of childhood fear and anxiety. Finally, Erikson's (1963) psychosocial theory of development is considered in its relevance for the developmentally and contextually sensitive delivery of interventions to children.

3.1 Bronfenbrenner's ecological systems theory: guiding theoretical and conceptual framework

Bronfenbrenner's (1977; 1979; 1986) developmental theories were utilised as a framework for conceptualising a context-specific understanding of the development of anxiety problems and adaptations that may enhance the effectiveness, feasibility and acceptability of an anxiety prevention intervention programme. This theoretical perspective is deemed particularly appropriate as a framework for the current study as multiple levels of a child's development and everyday reality are understood from a combination of individual, social and cultural vantage points. This framework allows for mental health interventions that attempt to consider the various ecological contexts that are important in children's lives (Derksen, 2010).

Bronfenbrenner's (1986) ecological systems theory postulates that development cannot be explored or explained by a single, isolated concept and interprets children's development and behaviour within an environment of complex systems of relationships (Lewthwaite, 2011). According to this theoretical stance, childhood development is shaped

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by progressively more complex, reciprocal and regular interactions between the child and these diverse environmental, interrelated systems over a period of time. Bronfenbrenner (1977) suggested that development is a progressive life-long process which entails continuous adaptation to changing, immediate environments and to changing formal and informal social contexts. In the current study, with its focus on both the immediate and social contexts of farmworker children in the Western Cape of South Africa, this framework was particularly helpful to conceptualise the effect that these contexts (of poverty, high levels of crime, socio-political histories that included marginalisation, etc.) may have had on overall development and the development of context-specific problems with fears and anxiety. This contextual exploration assisted in elucidating environmental elements and interactions to be considered in programme adaptation with the intention to change the potentially progressive development of anxiety symptoms amongst children in the priority population. This was done with the understanding that an intervention programme may not be able to change anxiety-producing systems within which children in the current study found themselves, but that interactions with those contexts and consequent levels of anxiety symptoms may be altered by the provision of contextually sensitive copings skills that take these systems into account.

Bronfenbrenner's much later PPCT theory of development was of interest in the current study and contains four components: process, person, context and time (Bronfenbrenner & Moris, 2006). The first component, *process*, may be proximal or distal. *Proximal processes* entail transactions between a child and his / her immediate surroundings that drive development. They can be preventive or protective in nature and are responsible for a child's overall wellbeing. In the context of the priority population of children in the current study, protective proximal processes related to anxiety may be lacking in terms of unsafe environments caused by high levels of violent crime, inaccessibility of mental health services and inadequate supportive resources, amongst others. *Distal processes* refer to a family's ability to offer support to a child and to interact with other environments within which the child operates, which may again be limited in families within contexts of poverty, lower levels of mental health literacy and semi-rural environments that make access to (already limited) mental health services challenging.

The second component, *Person* refers to the characteristics of the child that may determine the nature and strength of the influence of interactions with his / her environment. *Person* characteristics may for example include gender, age, temperament, illness and disability. An example of the interaction between *person* characteristics and the development of anxiety symptoms in the South African context were illustrated by the findings of a study

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by Howard, Muris, Loxton and Wege in 2017 in which tendencies for behavioural inhibition amongst children aged 2 to 6 interacted with parental over-protection in the development of higher levels of anxiety symptoms.

The third component, *Context* is arguably the most relevant component in the conceptualization and design of childhood development studies (Krishnan, 2010). *Context* has a modifying effect on proximal processes and includes environments with which there is constant physical, social or economic interaction. For example, the more remote a family might be when living on semi-rural farms and the more inadequate resources are to provide services to children, the less likely it is that children with anxiety problems will have access to mental health care services. *Context* consists of the four distinct concentric systems generated by Bronfenbrenner (1986; 1989) in his bio-ecological systems theory. The microsystem, the mesosystem, the exosystem and the macrosystem impact a child's development directly or indirectly and are embedded in settings of social interaction.

Briefly, the *microsystem*, which includes for example family, is closest to the developing child and comprises his or her social roles, activities, experiences and social interactions within a specific setting. The microsystem has been linked to the development of elevated anxiety due to social interaction with parents who are overprotective (similar to the findings by Muris et al., 2006). The *mesosystem* enfolds the microsystem and includes social interactions between settings in which a child finds him- or herself and with which there is active participation. Specifically, the mesosystem denotes relations among microsystems or connections among contexts (Neal & Neal, 2013). The *exosystem* enfolds the mesosystem and entails settings that influence the child, but do not involve direct interaction (Neal & Neal, 2013). The *macrosystem* enfolds the exosystem and entails broad cultural contexts with for example ideologies, belief systems, cultural norms, policies and laws. Bronfenbrenner (1986) also conceptualises the macrosystem as cultural or subcultural uniformities in the structure and content of the micro-, meso-, and exo-systems that also change with the passage of time.

Considering the *context* of farmworker children in the current study, the researcher was able to explore multiple systems that could potentially impact the effectiveness, feasibility and acceptability of an anxiety prevention intervention programme; and thus adapt it to fit into the ecology of the farm setting (see Burnett, 2008) in order to overcome barriers and potential obstacles to implementation. Additionally, consideration of *context* enabled the researcher to consider relevant systemic variations in the conceptualisation and development of anxiety problems within the priority population.

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Bronfenbrenner (1986) introduced the chronosystem that entails change (internal or external) or continuity across time that influences the other systems, for example moving to a new school or the onset of puberty (Neal & Neal, 2013). Studies with children and adolescents more frequently consider microsystems and macrosystems with exosystems and chronosystems enjoying much less attention (Neal & Neal, 2013). The final component, *Time* includes several aspects, such as chronological age, duration and the cyclical nature of development. An event has changeable degrees of influence on development, and the influence decreases as time progresses. In the current study, the timing of the intervention was planned for implementation with children of South African primary school age before the change to secondary school, thus taking the chronosystem into account with the hope of maximising impact with the timing.

The ecological systems theoretical framework mandates researchers to consider the settings in which children spend time, their relationships with others who share these settings, the personal characteristics of children and those with whom they interact, the development of children over time, the socio-historical context within which development takes place and the mechanisms that drive development (Geldenhuys, 2016). By consulting this theory of contexts, studies have been able to the identify multiple points of intervention (Neal &Neal, 2013). Additionally, Bronfenbrenner's view of culture as dynamic and influential across time and ecological levels is of special interest in the cross-cultural adaptation of interventions (Castro et al., 2010). Senefeld and Perrin (2014) argue that a holistic approach across multiple levels, found in ecological systems theories, should be applied in intervention programmes that address hardships faced by vulnerable children as risks are encountered on multiple levels of the social ecology (Betancourt, Meyers-Ohki, Charrow, & Hansen, 2013); and thus, intervention planning should consider the whole context of the child.

Finally, the ecological systems theoretical frameworks allude to the contextual considerations of adapting a Western-based intervention for use in a non-Western context and set the tone for the multi-level approach that such adaptation will require. As a theory, its model lends itself to cross-contextual research. In addition, mental health issues have also been linked to environments in which microsystems are threatening (Smokowski et al., 2017). This conceptualisation of the development of mental health difficulties is of relevance with regards to the context of this study – the broader South African context with high levels of violent crime and poverty as overarching social problems that filter through to mesosystems where school and home environments may be unsafe and poverty-stricken, and interactions between these microsystems may serve to further the development of ill mental

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health.

On the exosystemic level, poverty and working conditions of parents will affect the development of children in their daily interactions as parental anxieties may be transmitted to children (Bronfenbrenner, 1979). Geldenhuys (2016) argues for the importance of considering Bronfenbrenner's (2006) PPCT theoretical framework in the formulation of interventions within high-risk South African communities that may also be adapted to draw on the identification of existing personal and contextual strengths.

Within this conceptual theoretical framework, the researcher presents additional theories considered relevant to the current study in the rest of this chapter that will also contextualise the methods and findings of the adaptation and pilot phases of the study presented in this dissertation.

3.2 Cognitive theories of development

Cognition is a core component of CBT-based intervention programmes. Therefore, it is important to consider cognitive theories of development, especially Piaget's (1972) theoretical framework that proposes levels of cognitive ability at various stages in childhood. Vygotsky's (1978, 1986) sociocultural cognitive theoretical framework places emphasises on the role of a child's cultural context in the development of cognitive skills. Both theories contextualised the degree to which a CBT-based programme could be assimilated by children of the current study.

3.2.1 Piaget's cognitive theory of development

Piaget (1972) asserted that cognitive development proceeds through stages during which a child's thinking and behaviour reveal innate underlying mental structures. These developmental stages entail successive levels of adaptation to the environment and involve the reorganization of mental structures due to biological maturation and environmental experience. Piaget postulated that during each stage, a child develops cognitive models (mental structures) of interconnected schemas or operations according to which the world is understood. A child's cognitive development progresses through these pre-determined stages after disequilibrium (cognitive conflict) between stages. Once the previous and current stages of cognitive development have been integrated, there is a state of equilibrium in which existing schemas are complex enough to explain increasingly complex perceptions.

Equilibrium is attained by means of cognitive adaptation and involves two processes: assimilation and accommodation. Assimilation is the process of fitting reality into existing

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cognitive schemas or operations to understand and respond to a new experience. Accommodation is the process of adapting existing cognitive schemas or operations that no longer enable the child to understand and respond to a new experience. When the processes of assimilation and accommodation are balanced, equilibrium and organized cognitive structures are available to interact with the world. Also, Piaget (1972) argues that this process of assimilation and accommodation develop according to universal stages linked to specific ages, although Piaget noted that these ages are approximations that may vary slightly amongst individual children.

The current study included children aged 9 to 14, and due to the fact that there is still much debate in the literature (kindly refer to Section 2.1.3 in Chapter 2) regarding the cognitive readiness of children at various levels of development for participation in CBT, it was important to consider Piaget's theory of cognitive development. Towards this end, Piaget's *Concrete Operational Period* (approximately 7 to 11 years) and his *Formal Operational Period* (approximately 11 to 15 years) are discussed.

In the *Concrete Operational Period*, mental schemas or operations become useful and are applied in the development of organised and logical thinking. Although operations become logical, Piaget argues that they can be applied to only physical (concrete) objects and not yet to abstract or hypothetical mental actions. Children develop an ability to understand concepts such as conservation that has been linked to the ability to relate physical symptoms of anxiety and to anxious interpretation in children (Muris, Vermeer, & Horselenberg, 2008), and decentration that has been linked to the development of increased worry when children are able to consider multiple possibilities (Cartwright-Hatton et al., 2011). Socially, Piaget states that the concrete operational period entails a reduction in egocentrism, children start to understand intention in moral judgements, are more aware of subtleties in social relationships, and start to develop social identities.

The *Formal Operational Period* entails a change to formal operations wherein hypotheses are generated from concrete operations and thought becomes logical, abstract and hypothetical. Children are then able to formulate hypotheses, generate possible outcomes and test hypotheses against reality in the application of reflexive thinking in hypothetico-deductive thought. The ability to reflect on their thinking and cognitive structures is completed, since a single system of thought that is logical, abstract and flexible has resulted from the integration of several concrete operational logical systems. This stage of development has been argued to be better suited to the cognitive component of CBT-based programmes as it has been demonstrated, for example, that children in the formal operational

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stage are more likely to be have negative thoughts associated with anxiety (Alfano et al., 2006).

Stallard (2005) emphasises the importance of considering the cognitive developmental level of children in the formulation of CBT interventions as the cognitive demands of such a programme should not surpass the cognitive ability of the child. Even though some suggest that CBT is best suited for older children in middle and later childhood, CBT-based programmes for children present limited cognitive demands (Stallard, 2005). CBT, does however require children to reflect logically on behaviour and cognitions in both concrete and abstract ways – requiring more complex cognitive skills that, according to Piaget's cognitive developmental theory mature and develop in the concrete and formal operational periods. Fuggle, Dunsmuir and Curry (2013) highlight that some aspects in CBT's cognitive restructuring component require formal operational thinking as children are required to reflect on their own thoughts in abstract ways, and consequently children in the concrete operational phase may need to be guided more in the acquisition of this skill. Grave and Blissett (2004) and Quakley et al. (2004), cited in Cartwright-Hatton et al. (2011), both demonstrated that CBT components could be made accessible even to younger children with sensitive, appropriate training and familiar, concrete and visual aids.

However, research has also indicated the potential superior outcome of CBT delivered to children at more advanced cognitive levels, with Durlak et al.'s (cited in Stallard, 2005) metareview finding that children in the 11 to 13 age group benefit more with an effect size twice that of younger children. Research has suggested that children are able, from the age of 7, to link cognitive schema of anxiety to physical symptoms; but that the abstract thinking, logical analysis, and hypothesis testing required in cognitive restructuring are beyond the capabilities of children before the formal operational period (Graham, 2013). In light of the literature that offers various perspectives on the relation between CBT-based programmes and the cognitive developmental level required to benefit optimally from participation, the consideration of Piaget's cognitive developmental theory as it may be applied to the priority population was even more important in the current study.

3.2.2 Vygotsky's socio-cultural cognitive theory of development

Vygotsky's (1978; 1986) theory of cognitive development challenges Piaget's (1972) individualistic approach with a socio-cultural developmental framework (Louw, Louw, & Kail, 2014) that firstly considers how culture accounts for the variability of cognitive development amongst children in different contexts, and defines culture as inclusive of

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historical, social, economic and physical environmental influences. Secondly, this framework considers cognitive development as socially determined with learning mediated by supportive interactions between a child and a more skilled adult or peer, that are vital to the development of a more advanced level of thinking and understanding (Fuggle et al., 2013). Additionally, development is supported by context-specific tools provided to children from within their culture, such as language and numerical systems to name two (Louw & Louw, 2014).

Interestingly, Vygotsky's theoretical viewpoints have been linked to the theoretical development of CBT. Vygotsky suggested that a child's affective development is closely linked to development in the interaction between cognition and affect with developmental maturity demonstrated by affective complexity and the ability to control affect cognitively, (Vygotsky, 1982, cited in Kholmogorova, 2017). Additionally, Burkhardt (2008) observed that Vygotsky's theory could be applied in the interpretation of cultural expressions of fear and anxiety in the South African context that may be linked to the socio-cultural mediation of information from parents to their children. It is evident, then, that Vygotsky's theoretical framework of development is relevant in the conceptualisation of CBT-based interventions that aim to provide children with socio-culturally suitable cognitive and emotive management tools, delivered by means of supportive interactions with a more skilled person within a particular cultural context (as defined by Vygotsky). Two elements of Vygotsky's theoretical framework were considered applicable to the current intervention study.

Vygotsky proposed the *zone of proximal development* as the distance between a child's actual developmental level and a child's potential developmental level when under the guidance of more skilled adults or peers. Social interaction with more skilled adults or peers by means of methods, such as prompting, modelling, explaining, discussing, focusing attention to name a few, are believed to foster development. Within the South African context where realistic fears are part of the socio-cultural context of children and social interactions with more skilled adults are often geared towards focusing attention on potential threats and the provision of protective tools to cope with crime, the *zone of proximal development* offers a means of understanding anxiety problems and formulating suitable interventions for children.

According to this framework, learning is a by-product of social interaction in a process of reciprocal development often referred to a as *scaffolding* in which a more skilled adult or peer provides assistance just above a child's current level of competence so that the child will accomplish the task independently once the skill is acquired (Louw & Louw, 2014). Vygotsky extends this concept to play as a mediator of development, because a child

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can, in play, symbolically operate at a higher level than in real-life.

In conclusion, the consideration of socio-cultural context in children's cognitive development and learning is focal in the current study. The theoretical framework of Vygotsky proposes important suggestions for the delivery of CBT programmes in which a more competent adult within the *zone of proximal development* acts as a collaborator or trainer who delivers socio-cultural tools to, in the case of the current study, improve coping and reduce anxiety symptoms amongst children. Vygotsky's understanding of childhood cognitive development has already been used to modify adult CBT for use with children and to develop mental health "toolkits" in psychotherapy (Kholmogorova, 2017). Also, Vygotsky's concept of *scaffolding* is of value to adaptation of a CBT programme to be developmentally sensitive as considering how much scaffolding children would require has been found to enhance children's ability to engage in CBT and is argued to facilitate learning and to result in the internalisation strategies and skills that may be inaccessible without this approach (Reynolds, Girling, Coker & Eastwood, 2006)

3.3 Behavioural and social learning theories

Behavioural theories of classical and operant conditioning and Rachman's (1977, 1991) theory of fear acquisition are presented in this section. The social learning theory of Bandura (1977) extends the frameworks of learning to social and cognitive contexts. These theoretical frameworks are all considered relevant to the current study for two reasons: 1) the behavioural learning theories offer insights into the development of anxiety symptoms and are useful in understanding anxiety reduction components of CBT, and 2) the social theory offers insights into social and cognitive determinants of learning that may be applied in the contextual adaptation of interventions for children.

3.3.1 Theories of conditioning (classical and operant)

Watson (1928) proposed that all behaviour is learnt when associations are created between two stimuli (Louw et al., 2014) in his classical conditioning theory. Accordingly, an initially neutral stimulus (NS) paired with an unconditioned stimulus (UCS) results in an unconditioned response (UCR). After several pairings, an association forms between the NS and the UCS, which causes the NS alone, subsequently called the conditioned stimulus (CS) to evoke a conditioned response (CR). Skinner (1953) proposed that all behaviour is learnt from reinforcement in his operant conditioning theory. Accordingly, learning takes place to obtain rewarding reactions and to avoid punishment from the environment (Louw, et al.,

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2014). Behaviour that is rewarded is repeated and behaviour that is punished is not.

CBT therapists acknowledge that these two core principles (classical and operant conditioning) generate many of the anxious symptoms that result from a variety of stimuli in everyday life and therefore draw on them when formulating treatment responses (Visagie, 2016).

The behavioural component of CBT applies the principle that fear and anxiety are acquired via learning (conditioning) and can be *unlearnt* (James, Soler, & Weatherall, 2007). Avoidant behaviours are especially well explained by learning theories in that a fear response is associated with an object, and that avoidance behaviour is reinforced by the resulting reduction in anxiety (Gosch et al., 2006; Seligman & Ollendick, 2011). Treatment of avoidance based on learning theory is the creation of a new learning experience in the form of exposure to create a new association by pairing the feared object or experiences with a response incompatible with anxiety – relaxation (Gosch et al., 2006; Seligman & Ollendick, 2011; Banneyer, 2018). Although learning theories do not respond to any of the contextual components related to child anxiety problems, they do offer evidence that changes on the *person* level of Bronfenbrenner's conceptual framework has value in addressing behavioural components of anxiety.

3.3.2 Bandura's social (cognitive) learning theory

Bandura's (1977) *social learning theory* argues that learning is based on more than conditioning and results from interpersonal, environmental and behavioural factors, the basis from which Bandura (1977) contributed modelling, observational learning and self-efficacy to the learning theory repertoire. With the addition of cognitive decision-making in the learning of observed imitated behaviour, Bandura developed the social cognitive learning theory in 1986.

Bandura's (1977, 2006) theoretical frameworks contributed components considered relevant to the current study: *observational learning, self-efficacy* and *human agency*. *Observational learning* accounts for the acquisition of complex behaviours that are unlikely to be transmitted via instruction. Bandura refers to abstract modelling in which children learn general rules by observing specific behaviours and reproducing them. Depending on its nature, feedback from the model whose behaviour was observed and reproduced serves as reinforcement or non-reinforcement. However, Bandura argues that this is not required for observational learning to occur as learning can happen merely by seeing behaviour being demonstrated. Observational learning is argued to be more likely if the model has similar

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characteristics to the child, if the imitated behaviour is reinforced either externally by positive responses of others or internally by positive feelings following behaviour, and if the observed behaviour is reinforced – this is referred to as vicarious reinforcement. This component of Bandura's (1977; 1986) theoretical frameworks was of great importance as CBT programmes entail psychoeducation during which learning of coping skills needs to take place. In this regard, considering the ways in which adaptation of such a programme may draw on the potential value of observational learning and modelling by a relatable facilitator during delivery was particularly relevant. Also, considering the application of social learning in understanding context-specific development of anxiety problems had the potential to elucidate programme adaptations required to enhance the potential effectiveness of the already behavioural therapeutic approach in CBT of *unlearning* avoidant responses to stimuli (indicated a component of CBT in Kazdin & Weisz, 1998).

Bandura (1988) argues that *self-efficacy* relates to whether a child believes that he / she can master a particular skill and that it enhances observational learning by means of its influence on motivation, affect and cognition. It is argued that children with high levels of self-efficacy are more likely to engage with challenging tasks and those with low levels of self-efficacy are more likely to engage in avoidance of challenging tasks. Again, this component was considered of importance in framing an intervention for the priority population in which challenging and threatening contexts may impact the degree to which children, particularly children with anxiety problems, may be able to engage with threatening in order to develop self-efficacy, a key component of CBT intervention for childhood anxiety (in Kendall et al., 2005). Bandura (1988) argued that those who have a high estimation of control (perceived self-efficacy) over threatening environmental elements, do not engage in apprehensive thinking and experience lower levels of anxious arousal and distress. Also, Muris et al. (2002) found that self-efficacy was related significantly to variance in anxiety symptoms, which was later also indicated as a predictive component of anxiety symptoms by Muris, Meesters, Pierik and de Kock (2016), therefore supporting the importance of self-efficacy in childhood anxiety problems.

Human agency suggests that individuals are "self-organizing, proactive, self-regulating and self-reflecting" (pp. 164 in Bandura, 2006). Bandura (1989) proposes that learning happens through reciprocal factors that influence a person's cognitions and behaviours, and that *human agency* is the belief that it is possible to control the influence of those factors in the form of desired behavioural responses that can successfully control environmental contexts or events (Bandura, 1989). This belief or human agency determines

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motivation and self-efficacy and may be considered on three levels: *individual* agency; *proxy* agency by another person, and *collective* agency. Drawing on this perspective in the current study ensured that focus was also placed on individual and community level strengths (agency) to be harnessed during intervention as well as on the importance of considering the importance of human agency and self-efficacy within a context where poverty and crime may for example reduce these important components of learning during CBT-based interventions.

3.3.3 Rachman's three-pathway theory of fear acquisition

Rachman (1977) argued that conditioning learning theories do not explain the selective nature of fear acquisition. He proposed the three-pathways theory that can explain the acquisition of fear and anxiety problems by means of: (1) direct conditioning, (2) indirect, vicarious acquisition, and (3) negative information transmission (Rachman, 1977; King, Eleonora, & Ollendick, 1998). *Direct conditioning* suggests that a single exposure to cues related to a feared situation can result in the acquisition of fear. *Vicarious learning* occurs when modelled and observed fear responses result in the acquisition of fear. *Negative information transmission* results in the acquisition of fear when negative information is provided about a feared object, that cause associated negative beliefs and fear responses. Fear and anxiety symptoms, in this theoretical framework, can be acquired by means of any of the suggested pathways or in any combination. Rachman (1977) argued that information transmission has been largely overlooked despite it being an obvious form of transmission of fear as children learn about dangerous situations by means of instruction. Since avoidance is often associated with fear, fear and anxiety problems may be maintained when opportunities for the invalidation of negative information are lost (Du, Jaaniste, Champion, & Yap, 2008).

The severity of anxiety symptoms may also be related to the way in which it was acquired, with vicarious acquisition of anxiety via modelling and negative information being less severe, and direct conditioning experiences resulting in clinical anxiety problems more often (Muris, 2007). Of interest is Rachman's (1977) description of 'critical moments' that result in the onset of a fear response, which was illustrated by his observation that repeated exposure often did not result in the acquisition of fear until a 'critical moment' of psychological vulnerability.

Rachman's (1977) theoretical framework is considered relevant in the formulation of behaviour-based intervention responses to anxiety problems. For example, exposures in the form of systematic desensitisation are considered appropriate responses to directly conditioned symptoms of fear and anxiety whereas positive modelling and cognitive

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restructuring are considered appropriate response to indirectly conditioned symptoms of fear and anxiety (acquired by means of modelling and negative information), (King, Gullone, & Ollendick, 1998). The theoretical framework by Rachman (1977) therefore adds valuable insights into the potential ways in which symptoms of anxiety and fear may be learnt and potentially suitable behaviour components to apply within the scope of the CBT-based intervention.

3.4 Psycho-social theories of development

3.4.1 Erikson's psychosocial theory of development

In the psychosocial theoretical framework of Erikson (1995), personal and social development are determined by stages of physical maturation and increasing societal demands associated with this maturation. This framework is also believed to be culturally relative, meaning that even though children are theorised to develop through the same sequence of stages, development in each stage is argued to be culturally mediated. Moreover, Erikson acknowledges that culture is not fixed and changes over time, which also changes the societal demands made on children as they mature and develop their personalities. This focus on the fluidity of social and cultural developmental contexts, as well as the organisation of development according to approximate age groups were both helpful in the adaptation and evaluation of a CBT-based intervention for the priority population in the current study.

Erikson (1995) postulated a lifespan theory with eight stages of psychosocial development during which psychosocial crises are experienced as opportunities for development to the next stage. For the purpose of the current study, only the relevant stages that may contextualise adaptations and programme evaluation findings related to children between the ages of 9 and 14 are outlined. Stage 4: *Industry vs Inferiority* is considered to take place between roughly ages 6 and 12. This is the beginning of the industrial stage of children's development as children start to consider the world of knowledge and work. Successful learning experiences give children a sense of industry, feeling of competence and mastery. Failed learning experiences give children a sense of inadequacy and inferiority.

Stage 5: *Identity and Repudiation vs Identity Diffusion* takes place between roughly 12 to 18 years and is a stage of swift physiological change correlated with social expectations to make rational and educational decisions and to consider an assortment of roles. Various identities are integrated from childhood into a more comprehensive identity that can reach the goals of adolescence. Identity diffusion and personality fragmentation are the consequences of an inability to integrate identities due to, for example, marginalisation or too many

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potential occupational roles. Identity may be sought in social contexts, such as peer groups.

Finally, Erikson based his theory on the belief that human beings both seek to avoid pain and accomplish a positive sense of identity and on the importance of culture and context in development. With this theoretical framework in mind, it was evident that the cultural context and the nature of the settings in which children find themselves should be considered in the formulation of developmentally appropriate applications of CBT-based interventions that are also consistent with the general processes at particular stages of their development.

3.5 Cognitive-behavioural theory: underpinning theory of change in CBT

Cognitive-Behavioural Theory (CBT) that signified the relationship of cognition and behaviour to an emotional state and functioning within a social context and formulated an integrated approach to mental health with cognitive, behavioural, emotive and social strategies to bring about change (Kendall, 2006). The CBT approach fundamentally advocates that cognitive processes in the form of appraisals, meanings, assumptions and judgements are fundamental to the development and maintenance of emotional and behavioural responses and thus also affect the success of adaptation to life events or experiences (González-Prendes & Resko, 2012).

CBT is centred on three fundamental propositions: (1) cognitive processes and content affect behaviour as the way individuals perceive their realities determines how they respond to them; (2) cognitive processes and content are accessible through training and practice even if they are not within an individual's immediate awareness and may be monitored, clarified and changed; and (3) cognitive change may result in behaviour change and adaptive coping (Dobson & Dozois, 2010; Suveg, Sood, Comer, & Kendall, 2009; González-Prendes & Resko, 2012).

CBT may also be argued to comprise five components: cognition, mood, physiological responses, behaviour and environment (Hays, 2006). CBT constructs these components as interdependent and interrelated, because cognitions (perceptions, beliefs and self-talk) are considered to have a mediating effect on mood, behaviour and physiological responses to the environment, and CBT-based interventions should aim to create awareness of the interrelatedness of the five components whereby unhelpful and negative cognitions as well as the social or physical nature of an environment can result in uncomfortable, maladaptive and excessive mood states, physiological responses and behavioural choices (Hays, 2006). The focus on changing unhelpful and negative cognitions towards more

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rational, realistic and balanced thinking in CBT intends to relieve symptoms and increase adaptability and functionality (González-Prendes & Resko, 2012).

CBT complements the strategy of identification of cognitive or environmental determinants of these states with the development of coping strategies that include problem solving, social skills and support, and cognitive restructuring in the form of practise and exposure (Hays, 2006). Cognitive restructuring focuses on changing negative feelings by altering negative thoughts by means of the identification of cognitive errors, automatic dysfunctional thoughts and cognitive schema that maintain negative feelings. These unhelpful cognitive strategies are challenged and replaced by a broad range of helpful interpretations of experiences (Hays, 2006).

Yii-Nii Lin (2001) proposed three phases for CBT: *phase 1* entails the identification of the specific cognitive content that supports the problem or symptoms; *phase 2* entails the development of a therapeutic goal that will facilitate the reduction of symptoms and behavioural change; and *phase 3* entails the formulation of plans for implementation of the therapeutic goal, followed by evaluation and feedback. Behavioural strategies entail, for example, relaxation training, systematic desensitization, self-management and monitoring, modelling, behaviour modification and cognitive strategies entail, for example the identification of irrational ideas, beliefs, and thoughts, challenging irrational beliefs and restructuring positive cognitive frameworks (Yii-Nii Lin, 2001).

Cognitive-behavioural therapy (CBT) “describes psychotherapeutic interventions that aim to reduce psychological distress and maladaptive cognitive processes” (p.1, Stallard, 2002) and consists of a combination of cognitive and behavioural interventions (Muris, 2007; Kendall & Panichelli-Mindel, 1995) with the cognitive component based on the theoretical stance that behaviour, both normal and abnormal is influenced by cognitive processes (Muris, 2007; Beck, 1995) and the behavioural component is based on the classical and operant conditioning theoretical stance that acquired (and abnormal) behaviour can be unlearnt (Muris 2007; Wolpe, 1958). Dysfunctional cognitions generate negative emotional states (for example anxiety) that are mediated by behaviour that is often unhelpful, such as avoidance that results in short term relief but also prevents the acquisition and application of coping skills (Stallard, 2010; Maner & Schmidt, 2006).

In CBT, the approach is to address cognitions, behaviours and feelings that are distressing towards effecting (positive) change in all three components (Stallard, 2010). These components are considered as integrated as feelings and behaviours are believed to be produced by cognitions and interventions aim to bring about changes in cognitive and / or

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behavioural components and mediate changes in the others (Stallard, 2002; Kendall, 1991). Stallard (2005) argues that CBT is delivered by means of various strategies that are merged and presented in different ways to different groups of children, depending on for example age, developmental level and context. What all CBT approaches have in common are three levels of intervention, with *level 1* entailing psychoeducation, *level 2* entailing the development of coping skills and strategies and *level 3* entailing testing and appraising of maladaptive cognitions and behaviours whilst preparing children for potential relapse (Stallard, 2005).

3.6 Discussion of theoretical integration with the current study

In conclusion, the choice of theoretical perspectives included in this chapter contributed to the current study's conceptual framework. This framework sought a contextually sensitive adaptation of an existing CBT-based child anxiety prevention intervention programme for children within the South African context.

Towards this end, the framework offered by Bronfenbrenner's (1977; 1979; 1986) ecological systems theories created a suitable platform for the adaptation process of *Phase 1* of the current study. *Phase 1* focused on a multi-level contextual adaptation of an existing CBT-based child anxiety prevention programme. This phase also included multiple ecological contexts in its consideration of culturally, contextually and developmentally driven adaptations for the South African context. Bronfenbrenner's (1977; 1979; 1986) refusal to separate development from context made his theory particularly applicable to the current study; and allowed for greater contextual sensitivity in the feasibility and acceptability evaluation conducted in *Phase 2*. The feasibility and acceptability evaluation of the contextually adapted BRAVE programme required practical approaches to data collection that considered multiple contextual constraints, from issues of literacy to farmworker calendars, for example. Additionally, an advanced understanding of participants' contexts assisted in the interpretation of analysed data. With contextual sensitivity as focal point in the current study, Bronfenbrenner added great value to achieving this outcome.

Under the umbrella of Bronfenbrenner's (1977) conceptual framework, the cognitive theories of Piaget (1972) and Vygotsky (1978; 1986) offered further support to the current study's focal areas. Piaget's (1972) theory of cognitive development assisted both in considerations for the developmentally appropriate adaptation process implemented in *Phase 1* and analyses of the effectiveness and acceptability of the programme in *Phase 2*. With this lens applied to the priority population of children, the researcher could consider changes

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required from more than her own experience in education but also from a theoretical perspective that would support such adaptations. Vygotsky's (1978; 1986) socio-cultural theory of cognitive development was profoundly useful in its focus on culture in the development of children as well as its practical understanding of the socio-cultural elements of learning, which was applied in the adaptation of the programme for use with children who may associate with a particular South African culture.

The behavioural and social learning theories of Watson (1928); Skinner (1953), Bandura (1977; 2006) and Rachman (1977; 1991) contributed to the current study in the following ways. The behavioural theories of learning by Watson (1928) and Skinner (1953) contextualised the behavioural component of anxiety development and of the CBT-based child anxiety prevention programme. They further assisted in the development / adaptation of elements of reinforcement with the intention to enhance the programme outcomes. Bandura's (1977; 2006) social cognitive learning theory contributed to the adaptation of the programme in *Phase 1* with the inclusion of activities or components that intended to enhance learning during programme delivery by means of elements of observational learning, self-efficacy and human agency. Rachman's (1977) three pathway theory was utilised to contextualise the development of fear and anxiety, and was used to include components of vicarious learning and modelling with the aim of enhancing the outcomes of the programme. The psycho-social theory by Erikson (1995) was useful in the analyses of data, particularly in the acceptability evaluation of the adapted programme content. Finally, cognitive-behavioural theory of change was applied in the understanding of the CBT-based programme and its components that would be considered responsible for positive change amongst children who struggle with elevated levels of anxiety. This was particularly useful in the adaptation implemented in *Phase 1*. It is therefore evident that each theory included in this chapter contributed to the various phases of the current study.

3.7 Chapter summary

This theoretical chapter presented framework(s) within which the current study has been conducted. Bronfenbrenner's ecological systems theory that was deemed particularly relevant to the current study's focus on the contextual adaptation of CBT for children within a specific South African context. In light of the choice of a cognitive-behavioural therapy prevention intervention, cognitive-behavioural theory was presented and further considered. This was followed by a presentation of elements of developmental theories applicable to the current study which included Piaget's (1972) theory of cognitive development, Vygotsky's (1978,

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1986) socio-cultural cognitive theory, and Erikson's (1995) psychosocial developmental theory. Learning theories were presented as Watson's (1928) classical conditioning, Skinner's (1953) operant conditioning and Rachman's three pathways to fear acquisition were considered relevant to the topic of both CBT and childhood anxiety.

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CHAPTER 4: *PHASE 1* - RESEARCH METHODOLOGY OF THE CONTEXTUAL ADAPTATION STUDY

For the sake of clarity, the two main aims of the current study are restated briefly: 1) to contextually adapt an effective prevention intervention programme for a vulnerable group of South African children, using the organisational framework of Card et al. (2011) in *Phase 1*, and 2) to pilot test the adapted programme for its preliminary effectiveness, feasibility and acceptability in *Phase 2*. This chapter presents the methodology applied in *Phase 1* for the contextual adaptation (CA) of the DUTCH CBT-based group anxiety prevention intervention programme (Van Starrenburg et. al., 2013, kindly refer to Appendix A for letter of permission to the supervisor of this study) for an Afrikaans-speaking, vulnerable community of disadvantaged farmworker children. In this chapter, the background and considerations of the methodology applied in the contextual adaptation study are presented. The aims and objectives of the contextual adaptation study are then outlined, followed by the methods and procedures implemented. Finally, the chapter is concluded.

4.1 Background and consideration of methodology for the contextual adaptation

Contextual adaptation (CA) was undertaken in *Phase 1* to develop a context-specific anxiety prevention intervention. This resulted in the BRAVE programme and cross-culturally adapted anxiety outcomes measures that were used in *Phase 2*. In line with newer movements in the field of intervention adaptation, the term *contextual adaptation* (CA) is preferred as it encompasses culture, but also distinctly clarifies additional factors relevant to adaptation for a new priority population as contextual (Castro-Camacho, et al., 2018). In the current study, contextual adaptation focused on *cross-cultural adaptation* (CCA), *developmental considerations and child-friendliness adaptation* (DCA), and *consideration of environmental contexts* relevant to adaptation.

Due to limited intervention research and limited knowledge pertaining to the contextual adaptation of evidence-based (western) intervention programmes and outcomes measures for trans-contextual application within specifically Afrikaans-speaking farmworker child communities in the Western Cape of South Africa, *Phase 1* of the current study attempted to offer an in-depth view of the methodology and procedures applied. Intervention adaptation relies on a comprehensive understanding and knowledge of the community for which it is tailored (Hays, 2006; Rathod, Kingdon, Phiri, & Gobbi, 2010). As academic knowledge regarding the psycho-social context of Afrikaans-speaking farmworker

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communities is so limited and this limitation extends to many communities in the South African context, the focus of *Phase 1* was to highlight the importance of formulating context-specific methods and procedures during intervention studies. The researcher acknowledged the limitations that her role as an outsider brought to the CA (kindly refer to Section 2.2.1) and attempted to ameliorate these limitations by visiting the priority population context over an extended period of 18 months (January 2015 to June 2016) during *Phase 1*. During this time, the researcher consulted with the collaborating NGO representatives, community members, including parents and children from the priority population. The researcher also considered practical suggestions from the literature (kindly refer to Section 2.1.3), theoretical frameworks (kindly refer to Chapter 3), her own 12-year school-level teaching experience, and the knowledge and experience of her supervisor during the adaptation process.

4.1.1 Methodological considerations in the contextual adaptation of the DUTCH prevention programme

A number of theoretical and conceptual frameworks are available to guide researchers in the cross-cultural adaptation of interventions (kindly refer to Section 1.4.5 and Section 2.2.4). The conceptual framework suggested by Card et al. (2011) was selected for the current study, because (i) it offered *seven practical, detailed and transparent steps* that facilitated the implementation of *Phase 1*, (ii) it *overlapped with other adaptation frameworks* and allowed for the relevant inclusion of their suggestions, (iii) it *suited the CA objectives of the current study* with cultural-linguistic, cross-cultural, developmental and contextual considerations, (iv) it *stipulated consideration of the suitability of outcomes measures* and suggested adaptation if required, and (v) it *recommended consultation to support adaptation decisions* with community members, intervention programme specialists and the current literature.

The seven practical steps suggested by Card et al., (2011) included the: (1) *selection of an evidence-based programme*, (2) *mobilization of the original programme's materials*, (3) *development of a programme model* to understand the relationship amongst the original programme's components to assist with adaptation, (4) *identification of core components and best-practice characteristics* of the original programme, (5) *identification of mismatches* between the original programme and the new context, (6) *adaptation of the programme model* according to mismatches, and (7) *adaptation of the materials and outcomes measures* of the original programme. Card et al. (2011) stipulated guiding questions and considerations for the implementation of each of the seven steps that have been summarised in Figure 1 on page 62.

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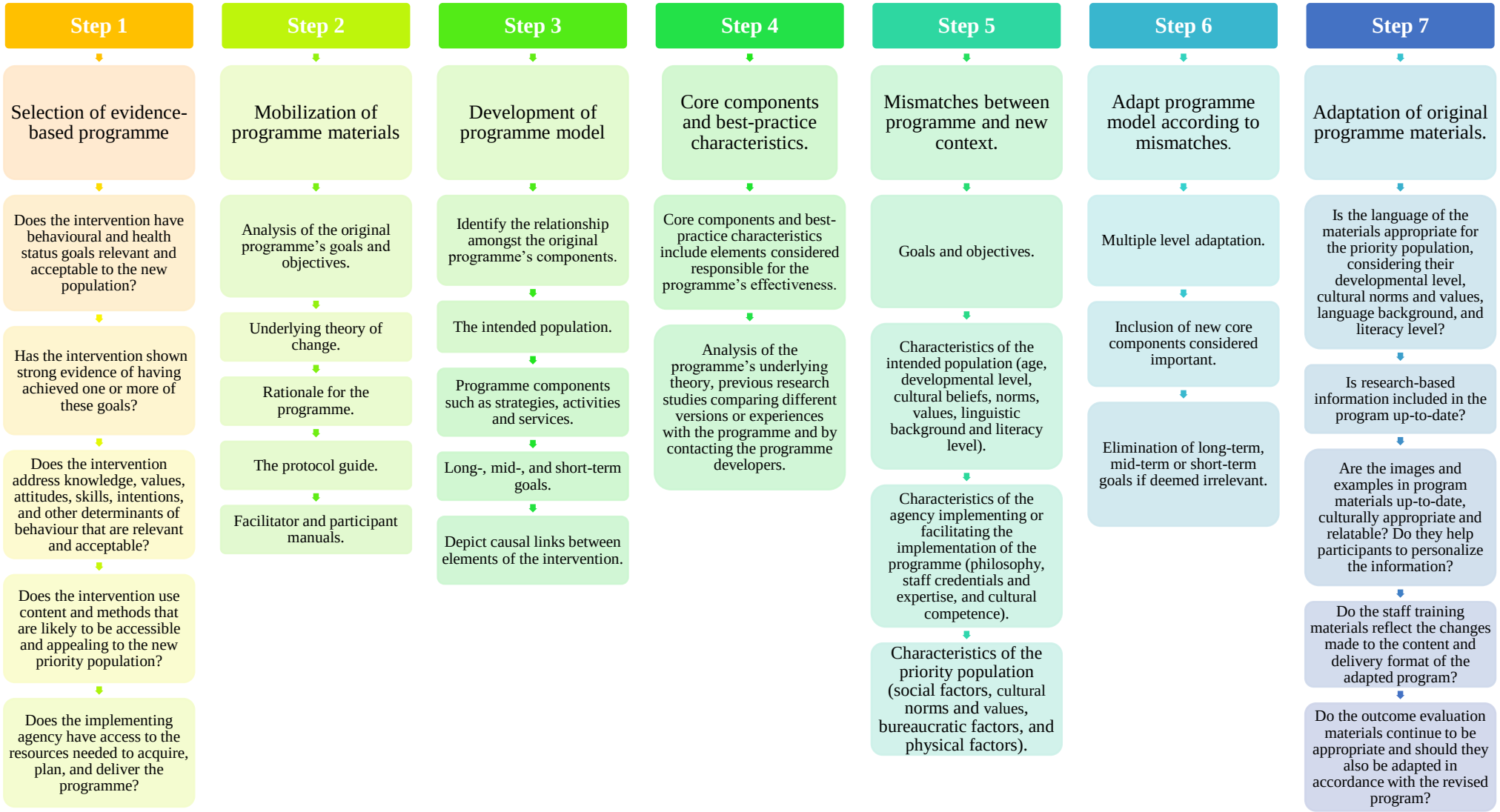

Figure 1. Summary of the guiding questions and considerations for implementation of the 7-step framework as suggested by Card et al. (2011).

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4.1.2 Methodological considerations in the cross-cultural adaptation of the anxiety outcomes measure

Step 7 of the conceptual framework (Card et al., 2011) suggested revision of the appropriateness of outcomes evaluation measures as part of the adaptation process. Initial consultations with NGO and community stakeholders underscored and confirmed the necessity for the cross-cultural adaptation (CCA) of the Spence Child Anxiety Scale (SCAS) outcomes measures (due to the identification of linguistic and interpretive inconsistencies) that had been chosen for use in *Phase 2*. As the conceptual framework by Card et al. (2011) did not include methodological suggestions for the CCA of the outcomes measures, the researcher consulted current suggestions and arguments in the literature for guidance (kindly refer to Section 2.2.5). Due to a lack in consensus regarding the CCA of measures, the researcher formulated 7 iterative translation and CCA steps: (1) *triangulated forward translation* into Afrikaans, (2) *panel review consultation* of translated versions, (3) *synthesis of translated versions*, (4) *panel review consultation* of synthesised versions, (5) *pre-final versions* of outcomes measures, (6) *community consultation*, and (7) formulation of *final versions* of outcomes measures. Descriptions of the 7 steps that were formulated by the researcher have been summarised in Figure 2 below.

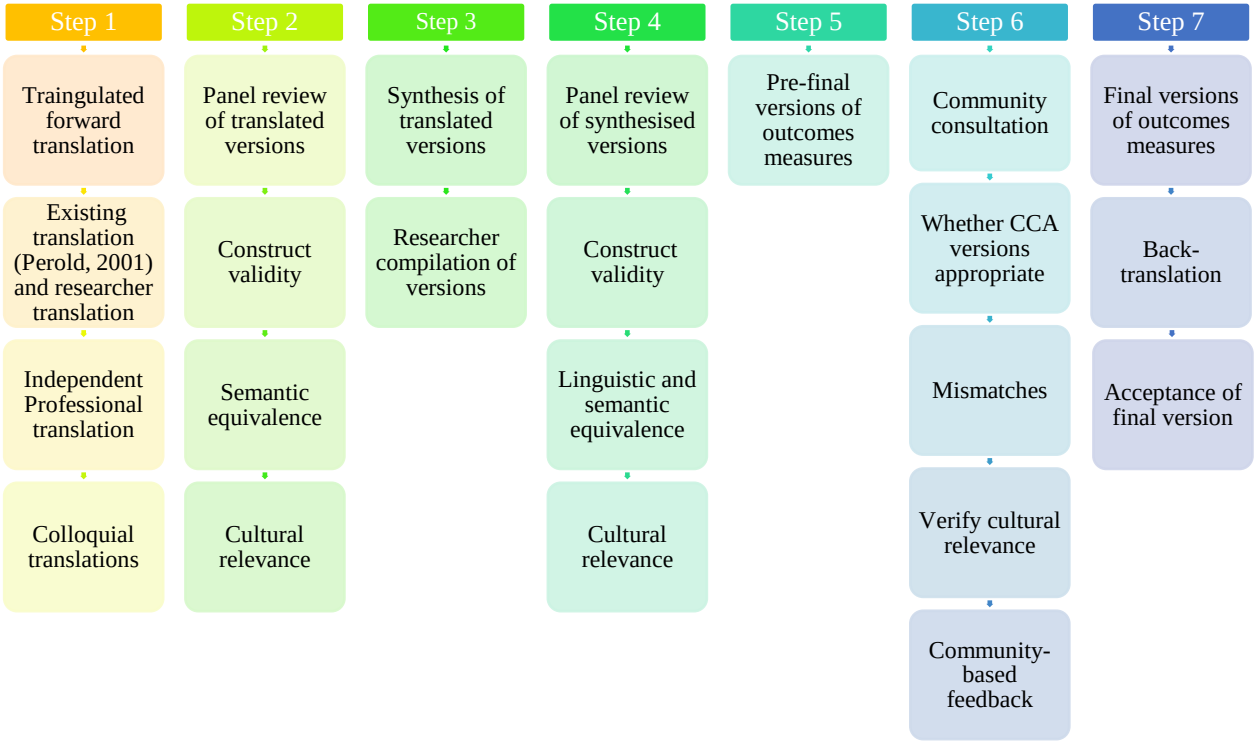

Figure 2. Summary of the framework for the 7-step cross-cultural adaptation of the outcomes measures

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4.2 The aims and objectives of the contextual adaptation (CA) of *Phase 1*

As far as the researcher could ascertain, no study has been conducted wherein a contextually adapted, effective CBT-based anxiety prevention intervention has been implemented and evaluated with vulnerable children in an Afrikaans-speaking, semi-rural farmworker community. Additionally, few studies provide detailed reports on the procedures, methods and findings associated with the contextual (or cross-cultural) adaptation of intervention programmes, resulting in a proliferation of international support for adaptation, but a lack of practical information to guide researchers in the development of precise, comparable procedures (Rathod, et al., 2018). It was therefore evident that a detailed report of the CA implemented in the current study was fundamental to making a meaningful contribution to this field of research.

Consultations with NGO and community members enabled the researcher to formulate an initial contextual perspective to inform the adaptation process. This underscored the need to consider the wider context of a specific socio-political history, lower socio-economic status, lacking delivery of mental health services; environmental contexts of poverty, semi-rural farming environments, lower parental educational status, exposure to high levels of poverty, crime and violence; personal contexts with specific educational outcomes, developmental considerations, a unique dialectical and colloquial use of the Afrikaans language and specific definitions or understandings of mental health and anxiety symptoms. With this initial contextual perspective in mind, the researcher engaged with key NGO and community stakeholders in all facets of the research process towards developing a deeper understanding of the required adaptations.

Therefore, the main aim of *Phase 1* of the current study (to contextually adapt the DUTCH anxiety prevention intervention programme for implementation and evaluation in *Phase 2* within a context-specific Afrikaans, South African farmworker community) included a number of objectives.

4.2.1 The objectives of the CA of the DUTCH prevention programme in *Phase 1*

In order to address the main aim of *Phase 1*, the four primary objectives were included:

- the translation of content into context-specific, colloquial Afrikaans;
- the cross-cultural adaptation (CCA) of content and delivery processes;
- the developmental consideration and child friendliness adaptations (DCA); and
- the consideration of environmental contexts relevant to adaptation.

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4.2.2 The secondary objectives of the CA in *Phase 1*: the cross-cultural adaptation of the outcomes measures

Specifically, the CCA of the SCAS-child and -parent outcomes measures included the following two objectives:

- translation of the outcomes measures into Afrikaans; and
- the cross-cultural adaptation of the outcomes measures.

4.3 Method and procedures implemented in the contextual adaptation (CA)

Figure 3 on page 69 provides a visual presentation of the procedure of *Phase 1* of the current study.

4.3.1 Method and procedures of the contextual adaptation of the DUTCH prevention programme

A detailed description of the procedures applied in the 7 steps (Card et al., 2011) of the contextual adaptation (CA) is provided below. Outcomes may be viewed in Chapter 5.

1. The selection of a suitable intervention programme for the priority population. The DUTCH prevention intervention programme was evaluated by the researcher and the supervisor of the current study in consultation with the DUTCH programme developers, Professor Engels, Dr Kuijpers and Dr Van Starrenburg (Radboud University, the Netherlands, at the time of the implementation of *Phase 1*) for its suitability and was subsequently selected as an appropriate option.

2. Mobilization of the programme materials of the DUTCH programme was implemented during an invaluable 3-day training workshop hosted by, Dr Van Starrenburg and Dr Kuijpers in the Department of Psychology of Stellenbosch University from 16 to 18 May in 2014. The programme goals and objectives, underlying theory of change, rationale, protocol guide, facilitator manual, participant manual, programme materials, and potential programme and contextual limitations to transcultural application were presented as focal points.

3. The development of a programme model was expedited by the 3-day training workshop. The researcher developed a detailed programme model to elucidate the relationship amongst the original programme's components, between programme components and implementation approaches, and activities and content.

4. The identification of the original programme's core components and best-practice characteristics to be preserved during adaptation was completed in conjunction to Step 3. The DUTCH prevention programme's core components and best-practice characteristics

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considered responsible for its effectiveness were identified based on its theoretical underpinnings and consideration of the literature on the *Coping Cat* programme (programme by Kendall et al., 1998).

5. Identification of mismatches between the original programme and the new context. An explorative pre-intervention focus group session with four children from the priority population and extensive consultations with two social workers from the collaborating NGO facilitated this step. The DUTCH programme materials (therapist manual and child workbook) were translated into Afrikaans. Thereafter, 12 group-based consultations (6 with children aged 7 to 10 and 6 with children aged 11 to 13), in which abbreviated content of the 12 translated sessions was presented, explored both fit and mismatch with the new community. Mismatches were identified on both *deep* and *surface structure levels* (Kindly refer to Section 2.2.4) as described by Ferrer-Wreder, et al., 2012.

6. Adaptation of the programme model according to mismatches. The adaption the DUTCH programme model was focused on the identified mismatches and the preservation of core components considered responsible for its effectiveness. This was done by means of extensive consultation with the supervisor of the current study and the current literature on CBT-based interventions for childhood anxiety.

7. Adaptation of the original programme materials was completed according the elements of contextual adaptation as defined in the current study and therefore with consideration of cross-cultural, developmental, child-friendliness and environmental contextual relevance. The context-specific, Afrikaans BRAVE programme was then developed. Finally, the outcomes measures (SCAS-child and -parent measures) were translated and cross-culturally adapted (Kindly find methods and procedures in Section 4.3.2).

4.3.2 Method and procedures of the cross-cultural adaptation of the outcomes measures

As part of Step 7 outlined in the CA framework (by Card et al., 2011), the cross-cultural adaptation (CCA) of the anxiety outcomes measures, the Spence Child Anxiety Scale for children (SCAS-C) and for parents (SCAS-P) utilised information gathered during consultations with both a *panel* of specialists in the fields of psychology, social work and translation (hereafter the 'panel') and child and parent *community* members (hereafter the 'community'). Kindly refer to Section 6.6.3.1 in Chapter 6 for an outline of the SCAS-C and SCAS-P anxiety outcomes measures.

The outcomes measures were translated into three Afrikaans versions each in keeping with Hambleton, Merenda, & Spielberger's (2005) recommendation that multiple

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translations enhance the quality of outcomes measures. Brislin's (1970; 1986) suggested translation methods were supplemented with an additional focus on the cross-cultural relevance of item language, metaphors and colloquialisms. The CCA was implemented in an iterative process grounded within guidelines suggested by the ITC (2005), which stipulate (a) consideration of the linguistic and cultural differences of the new community, (b) scrutiny of the language use and content familiarity of items and descriptors, (c) collection of systematic judgemental evidence of language and psychological equivalence, (d) consideration of familiarity with intended test conventions, and (e) evaluation of the data collection design.

Seven iterative CCA steps were formulated and implemented by the researcher and details of the procedure is outlined below. Outcomes may be viewed in Chapter 5.

1. Triangulated forward translation. Triangulation was achieved by three levels of translation: (i) construct-focused translations by researcher and supervisor, facilitated by an existing Afrikaans version of the SCAS-C measure (by Perold, 2001) which had been used in other South African childhood anxiety studies such as by Mostert and Loxton (2008); (ii) linguistically equivalent, grammatically proofed translations of the outcomes measures by an impartial, professional translator with a degree in psychology, extensive knowledge of anxiety and a post-graduate degree in Afrikaans; (iii) independent, colloquial translations focused on context-specific linguistic and cultural differences by two clinical social workers from the collaborating NGO.

2. Panel review consultation. A panel review facilitated the synthesis of translations into pre-final versions of the outcomes measures. With the aim of developing CCA, yet equivalent versions of the outcomes measures, items were reviewed for (a) construct validity, (b) semantic equivalence and (c) cultural sensitivity. Context-specificity was considered in terms of educational and literacy variance, colloquial use of Afrikaans and content familiarity of item descriptors. After review of translation of items, the most appropriate Afrikaans translations were formulated or selected for inclusion.

3. Synthesis of translated versions. The researcher synthesised translated items selected during the panel review procedure into pre-final versions and included suggested modifications.

4. Panel review consultation of synthesised version. Synthesised versions of the outcomes measures were reviewed in terms of (a) construct validity, (b) linguistic and semantic equivalence, and (c) cultural sensitivity. An additional panel member, a community member employed by the collaborating NGO, was consulted regarding the accuracy and cultural sensitivity of colloquial modifications. Item descriptors for which consensus of satisfactory

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context-specific alternatives could not be reached, were identified for exploration during community consultations. Potential variable familiarity with constructs, content and testing conventions of the outcomes measures was reviewed. Suggestions for data collection procedures sensitive to potential variations and simplification of Likert-scale descriptors were suggested.

5. Pre-final versions of outcomes measures. The researcher compiled a pre-final version of the SCAS-C and SCAS-P outcomes measures with the suggested modifications. Items identified for exploration during community consultations were included and pre-final versions were proof-read.

6. Community consultation via cognitive interviewing. Individual community consultations were used to review the pre-final versions of the outcomes measures. Cognitive interviewing methods (as applied by Peterson, Peterson & Powel, 2017) were used to identify potential sources of response error. Scripted and spontaneous verbal probes explored the: (i) original and simplified Likert scale descriptors for preference, (ii) items for understanding and interpretation by means of consultant paraphrasing or provision of examples that illustrated understood meaning, and (iii) identification of items for which more satisfactory, culturally sensitive colloquial alternatives could be provided. The consultations were therefore utilised to: (a) determine the appropriateness of the pre-final versions of the outcomes measures, and (b) gather information regarding modifications required to enhance construct validity, linguistic and semantic equivalence, and cultural sensitivity.

7. Final versions of the outcomes measures. Information from both the panel and community consultations facilitated the development of a final Afrikaans versions of the SCAS-P and SCAS-C outcomes measures which were applied in *Phase 2* of the current study.

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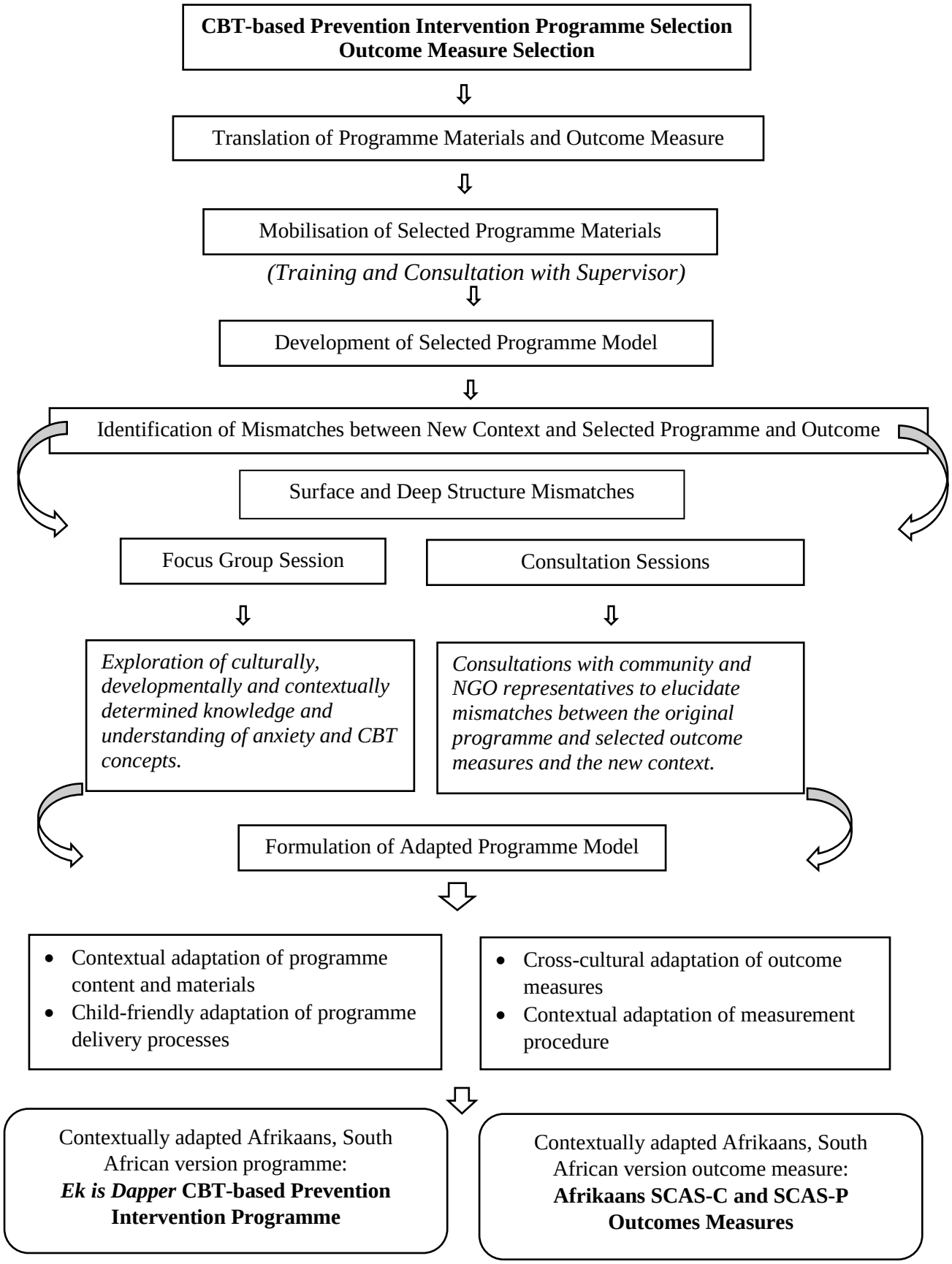

Figure 3. Researcher developed presentation of the *Phase 1* contextual adaptation procedure.

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4.3.3 Design

The contextual adaptation (CA) of the current study was exploratory in nature. Information was gathered for the CA of the DUTCH programme from one pre-intervention focus group session with 4 children, 6 group consultation sessions with two groups of 4 assenting children (12 consultation sessions in total) and 3 consultations with 2 clinical social workers of the collaborating NGO. Information was gathered for the CCA of the outcomes measures from 8 individual consultations with parents and 8 individual consultations with children.

4.3.4 Pre-intervention focus group and consultation participants of *Phase 1*

A total of 12 children and 6 parents were approached for voluntary consultation in *Phase 1* of the current study. Consultants were Afrikaans-speaking farmworker children and parents from one of the wine farms in the Western Cape of South Africa serviced by the collaborating NGO. More detail concerning the context of the consultants is provided in Sections 6.3 and 6.4 in Chapter 6. Written assent was obtained from participants and written consent from their parents for participation in the current study and no children or parents refused to take part.

4.3.4.1 Consultants for the contextual adaptation of the DUTCH programme

4 children (*N = 4*) aged 8, 9, 10 and 11 participated in the pre-intervention focus group session and 8 children (*N = 8*) participated in 4-person group consultation sessions (Group 1, aged 7-9 and Group 2, aged 10-12) for the CA of the DUTCH prevention programme. The demographic characteristics of the pre-intervention focus group and consultation session participants are presented in Tables 1 and 2 on page 65.

4.3.4.2 Consultants for the cross-cultural adaptation of the outcomes measures

Community consultants: Of the 8 children who participated in the consultation session in the contextual adaptation of the DUTCH programme, 6 children (*N = 6*) aged 7 to 12 and one of their parents each (3 fathers and 3 mothers) participated in individual consultation sessions for the CCA of the SCAS-C and SCAS-P outcomes measures.

Panel consultants: 5 fully bilingual Afrikaans- and English-speaking consultants included the researcher of the current study, the supervisor of the current study who has child psychology teaching and research expertise and experience in community-based intervention research on the topic of childhood anxiety; an MA psychology student with experience in community-based research and knowledge of childhood anxiety; and two clinical social

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workers (from the collaborating NGO) knowledgeable of childhood anxiety and with first-hand experience of the community. Kindly refer to Table 1 on page 71 and Table 2 on page 72 for demographic details.

Table 1

Demographic Characteristics of Pre-intervention Focus Group Participants (N = 4)

Characteristics	Number (n) of participants	Percentage (%) of participants
Gender:		
Boys	2	50
Girls	2	50
Culture:		
[4]Coloured	4	100
Age in years:		
8	1	25
9	1	25
10	1	25
11	1	25
Grade:		
3	1	25
4	1	25
5	2	50
Language of Schooling:		
Afrikaans	4	100

[4] Kindly refer to 2.2.1 for a discussion of culture and race as it is presented in the current study.

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Table 2

Demographic Characteristics of Consultation Participants (N = 8)

Characteristics	Number (n) of participants	Percentage (%) of participants
Gender:		
Boys	3	37.5
Girls	5	62.5
Culture:		
[5]Coloured	8	100
Age in years:		
7	1	12.5
8	1	12.5
9	2	25
10	2	25
11	1	12.5
12	1	12.5
Grade:		
2	1	12.5
3	1	12.5
4	2	25
5	2	25
6	2	25
Language of Schooling:		
Afrikaans	8	100

4.3.5 Procedure of *Phase 1*

The procedure for which ethics clearance and permission was obtained was implemented in the same way for *Phase 1* and *Phase 2* of the current study. This procedure is described in Section 6.6 in Chapter 6. The collaborating NGO identified one of the wine farms on which aftercare services were identified as the study site for *Phase 1* and children were recruited with the assistance of aftercare teachers. Aftercare teachers and NGO social workers assisted

[5] Kindly refer to 2.2.1 for a discussion of culture and race as it is presented in the current study.

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the researcher in arranging information meetings during lunch breaks with parents on the identified farm site. Parents were informed of the nature of the study and were asked for their consent. Consent forms were read aloud, and each parent was requested to provide written consent should they agree to participation. After obtaining written consent for participation in the current study from the children's parents, a meeting with the consented children was arranged by aftercare teachers on an afternoon when they were certain to return from school early.

The researcher explained the nature of the study, read assent forms aloud and requested written assent for participation. Before the commencement of the pre-intervention focus group session, the group consultation sessions and the individual consultation sessions, the researcher followed the same procedure. Participants were given the opportunity to ask questions and were reminded of the voluntary nature of their participation and their right to withdraw at any time. No participant opted to withdraw from any sessions. The importance of confidentiality was explained to children who were then asked to agree not to disclose information shared by of any of the focus group members outside of the group (as suggested by Dowling, 2014). Participants could share, with their parents for example, only their own session disclosures.

The pre-intervention focus group session was scheduled for after school hours on an afternoon when children would be at the aftercare facilities early and consisted of approximately 45 minutes. It was conducted in Afrikaans by the researcher in a classroom at the aftercare premises. The pre-intervention focus group interview guide was semi-structured and may be viewed in Appendix B. The 6 consultation group sessions were scheduled during a school holiday when children were available at the aftercare facilities for longer periods of time. This enabled the researcher and a research assistant to host two consultation sessions of about 60 minutes in length per day on six consecutive days. Consultation sessions were conducted in Afrikaans by the researcher and the research assistant in a classroom at the aftercare premises. Both the researcher and research assistant were fluent, home language Afrikaans-speakers and had received training in the delivery of the DUTCH prevention programme.

Group consultation sessions consisted of the presentation of Afrikaans, abbreviated and condensed content and delivery processes of the 12 sessions of the DUTCH programme in order to observe and consult with child participants. The research assistant received daily supervision and training from the researcher and presented the abbreviated session content and delivery processes to participants for 35 to 40 minutes, during which the researcher

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utilised *Qualitative Form 2: Session-wise programme implementation observation form* also used in *Phase 2* of the current study (kindly refer to Appendix C) to note children's responses to the content (such as metaphors, language, examples), delivery process (such as activity and session structure), and the facilitator (such as the style of presentation, rapport and discipline). The researcher also noted logistical and practical issues such as venue access and suitability, logistical constraints related to implementation in a community setting, contextual issues such as the impact of the venue, culture and language on responding to session content, and the observed utility of the Afrikaans translated DUTCH prevention programme facilitator manual and children's workbook. The consultation segment of the sessions consisted of about 10 minutes and explored children's responses to the abbreviated DUTCH programme content.

The researcher consulted two NGO social workers who offered services to participating parents and children during three contact meetings to gather information on potential *surface* and *deep structure* mismatches (kindly refer to Section 2 2.4) between the original Dutch-based prevention programme and the new context. Themes explored during these consultations may be viewed in Table 3 in Appendix D.

The 12 individual consultation sessions (1 individual session with 6 child participants and 1 individual session with 6 parent participants) were scheduled for children in the afternoons after school for a maximum time of 30 minutes, and for parents for a maximum time of 30 minutes during their lunch hour. Individual consultation sessions were conducted in Afrikaans by the researcher and her research assistant on the aftercare's premises. During individual consultation sessions, the researcher and research assistant read Afrikaans items of the SCAS-C outcomes measure to children and of the SCAS-P outcomes measure to parents. They were then consulted in terms of understanding and interpretation, and their responses were noted.

4.4 Chapter Summary

This chapter presented the methodology applied in *Phase 1* - the contextual adaptation (CA) of an anxiety prevention intervention programme and anxiety outcomes measures for use in *Phase 2* of the current study. The background and considerations of the methodology, the aims and objectives of the CA study, and the methods and procedures implemented in the CA were presented. The outcomes of *Phase 1* are presented in Chapter 5.

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CHAPTER 5: *PHASE 1* - OUTCOMES AND DISCUSSION OF THE CONTEXTUAL ADAPTATION STUDY

For the purpose of clarity, the main and secondary objectives of *Phase 1* of the current study are briefly restated: The four *main objectives* of the contextual adaptation of the DUTCH prevention programme were as follows: (i) the translation of content into context-specific, colloquial Afrikaans, (ii) the cross-cultural adaptation (CCA), (iii) the developmental consideration and child-friendliness adaptations (DCA), and (iv) the consideration of environmental contexts relevant in the adaptation of programme content and delivery processes. The two se*condary objectives* were in response to the cross-cultural adaptation of the study outcomes measures and included: (i) translation of the outcomes measures into Afrikaans, and (ii) the cross-cultural adaptation of the outcomes measures.

This chapter presents the outcomes of *Phase 1* of the current study. Firstly, the outcomes of the contextual adaptation of the DUTCH anxiety prevention programme are presented and organised according to the 7 steps (suggested by Card et al. 2011). Secondly the outcomes of the cross-cultural adaptation (CCA) of the SCAS outcomes measures are presented. Thirdly, a discussion of the outcomes of the CA of the DUTCH anxiety prevention programme is offered, followed by a discussion of the outcomes of the CCA of the outcomes measures. Finally, the researcher provides an integrated discussion of the outcomes of the contextual adaptation (CA) study. Information in support of the outcomes reported in this chapter are presented either within this chapter or tabulated in appendices.

5.1 Outcomes of the contextual adaptation of the DUTCH programme

5.1.1 Outcomes of Step 1 and 2 of the Contextual Adaptation based on Card et al. (2011)

Selection of an evidence-based programme and mobilisation of materials

In *Step 1*, the DUTCH prevention programme was selected for its suitability for the intended context. Consistent with the suggestions by Card et al. (2011), the programme was evaluated in terms of its mental health goals, evidence for achieving these goals, relevance of its knowledge and values, accessibility and appeal of its content and methods and required resources for delivery. Details of supporting information may be viewed in a Table 4 in Appendix E.

This choice was further supported by several advantages: (i) It was an abbreviated version of the American *Coping Cat* (by Kendall, et al., 1998) which had garnered much support as an evidence-based CBT anxiety treatment intervention programme for children

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between the ages of 7 and 13 and had been implemented across cultural contexts. (ii) It had been translated and adapted for a Dutch context. Thus, the researcher could consult meaningfully with the developers regarding limitations and challenges associated with adaptation. (iii) It was adapted for a group format delivery which was considered advantageous in the South African context where resources are limited. (iv) It was adapted to a prevention intervention, which enabled delivery by facilitators.

In Step 2, the intervention materials were mobilised and the rationale, goals and objectives, theory of change, protocol guide, manuals and potential limitations in the trans-contextual application of the DUTCH prevention programme explored and defined. Details of supporting information may be viewed in Table 5 in Appendix F.

5.1.2 Outcomes of Step 3 of the contextual adaptation based on Card et al. (2011)

Develop a programme model to understand relationship between programme components

The researcher developed a programme model of the DUTCH prevention programme (kindly refer to Figure 4, p. 79) that outlined the: intended population; short-, mid- and long-term goals; required inputs for implementation and outputs of the programme; and the programme structure and session content.

The ***intended population*** included Dutch children aged 7 to 13 years (Grades 1 to 8) who presented *subclinical levels of anxiety*. Prevention was *indicated* – targeting children at risk for the development of anxiety disorder. Hence, the expected outcome was a reduction of anxiety levels to a 'normal' range post-intervention and the prevention of the onset of disorder. Dutch translated versions of the SCAS-C and SCAS-P outcomes measures were utilised to evaluate anxiety.

The ***short-term goals*** of the programme were broadly related to the development of psychoeducational knowledge with (i) *improved knowledge of anxiety and CBT,* (ii) an understanding of the *interrelatedness of emotions, cognitions and behaviours*, (iii) the implementation of *relaxation training* to reduce somatic responses to anxiety, (iv) the development of *coping cognitions and cognitive restructuring*, (v) the development of *active coping and behaviour modification*, (vi) the *application of acquired skills* in exposure and real-world situations, paired with rewards as reinforcement.

The ***mid-term goals*** were identified as the (i) *reduction of avoidance behaviour* in anxious children, (ii) *increased coping* and emotional intelligence, (iii) *generalisation of coping skills* along with positive decisions and choices amongst children with elevated anxiety; (iv) *significant reduction of sub-clinical anxiety* levels in children to within the

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normal range.

The ***long-term goals*** were identified as the: (i) *prevention of the onset of anxiety amongst at-risk children*, (ii) *reduction of the prevalence* of anxiety disorder, (iii) *reduction of demands on mental health care*, (iv) the development of a *cost-effective* Dutch group-based anxiety prevention programme for dissemination.

An analysis of the required ***input*** for the delivery of this programme indicated a need for resources, such as funding and highly *qualified clinically trained Masters' level psychologists* experienced in child mental health care and knowledgeable of CBT. As a result, the stipulated supervision and training resource requirements were quite low with a *two-day protocol training and three supervision sessions* during implementation. In terms of participant qualities required for participation, child participants (and mothers) were *literate* (implying that they would find a workbook-based delivery accessible) and parents were able to contribute *time* (in the context of shorter working hours with estimates of 29 hours per week in the Netherlands, Statistica, 2017; and 35 to 50 hours per week in South African farming communities, (Visser & Ferrer, 2015) and *resources* (in the context of an average Dutch income 8.5 times higher than an average South African income, WorldData.info, 2017) in facilitating *home-based exposure and parent-provided rewards* to encourage participation, attendance and completion of both the programme and exposure tasks. The programme was delivered on *school premises* after school hours and implementation was funded.

The overall intended ***outcomes*** of the programme specifically related to a *brief, 12-session group-based prevention programme* that was *effective and culturally adapted* from the American *Coping Cat* treatment intervention. Sessions were delivered in *weekly 1-hour sessions*. The Dutch version included culturally relevant content, such as using cycling examples in content delivery, but maintained core *Coping Cat* programme components, such as the application of *psychoeducation and exposure sessions*, the use of the *FEAR plan* to guide the acquisition and application of CBT-based coping skills in psycho-educational and exposure sessions. *Homework tasks* (the STIC – Show That I Can tasks) and *parent-provided rewards* were used to enhance the acquisition and application of CBT-based coping skills, and parents were involved further with *written feedback* regarding programme information and their child's progress three times during implementation. The effectiveness of the Dutch prevention intervention was evaluated by means of SCAS-C and SCAS-P self-report outcomes measures. *Children completed the SCAS-C independently* under the supervision of researchers or trainers after school hours.

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5.1.3 Outcomes of Step 4 of the contextual adaptation based on Card et al. (2011)

Identification of core components and best-practices to be preserved during adaptation

Summaries of identified core (content) components and best practices (delivery processes) that were identified for preservation during adaptation of the DUTCH prevention programme may be viewed in Table 6 in Appendix G.

Core content components to be preserved during adaptation included: the *CBT-based theoretical underpinning*, the implementation of psychoeducation with the use of the *BANG (FEAR) plan as an integrated coping skills method*, and exposure. *Graded exposure* both in sessions and as homework was considered vital to the effectiveness of the programme. Additionally, the practice of tailoring content to enhance cultural fit by including *relevant metaphors and examples* was considered beneficial to successful adaptation.

Delivery process components to be preserved during adaptation included: the *development of group cohesion* and *strategies to maintain safety* in the group throughout programme delivery. *Effective motivation* strategies were to be preserved, and included *rewards*, building rapport, fostering hope for change and positive attitudes to produce emotive, cognitive and behavioural change. The use of *multiple delivery methods* covering skills sequentially in thematically organised sessions was considered important. Delivery strategies included for example: role modelling, the development of social support by means of *communication with parents* and the *involvement of parents in home-based exposures*, and the provision of rewards for participation were also considered responsible for the success of the programme.

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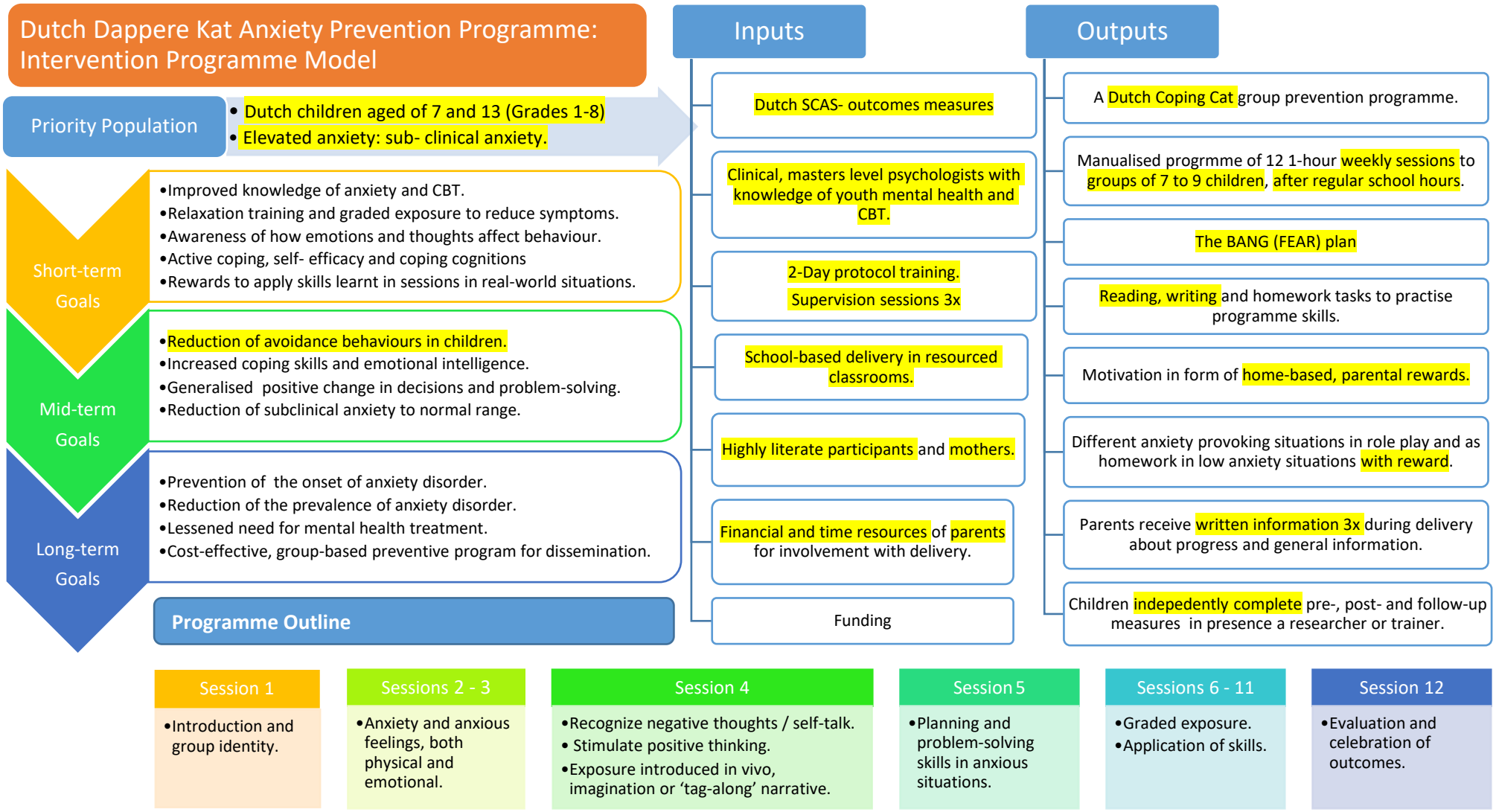

Figure 4. Researcher interpretation of the DUTCH programme model based on its protocol.

Note: Mismatches between the DUTCH programme model and the new context are highlighted in Figure 4 above.

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5.1.4 Outcomes of Step 5 of the contextual adaptation based on Card et al. (2011)

Identification of mismatches between the original programme and the new context

The researcher utilised the information gathered in Steps 1 to 4 as well as information gathered via pre-intervention focus groups, group consultations, observations and a literature review to explore mismatches between the DUTCH prevention programme and the new, Afrikaans, semi-rural wine farm context in South Africa. Mismatches were considered in terms of deep and surface structure components (Ferrer-Wreder, Sundell, & Mansoory, 2012; kindly refer to Section 2.2.4) of the DUTCH prevention programme and focused on content and delivery process elements that were not matched to the new context. Information supporting identified deep structure and surface structure mismatches may be viewed in Table 7 in Appendix H and Table 8 in Appendix I respectively.

5.1.4.1 Step 5.1: Deep structure level mismatches

Kindly refer to Table 7 in Appendix H for a visual presentation and supporting detail of the mismatches. On the deep structure level, mismatches between the DUTCH prevention programme model and the new context were explored. This included consideration of the (i) goals and objectives; (ii) theory of change; (iii) characteristics of the new priority population, community and the intended agency for future implementation; and (iv) programme input and (v) programme output.

The **(i) *short-, mid- and long-term goals*** of the DUTCH prevention programme were considered *mostly matched* to the new context, particularly in terms of the long-term goals of reducing elevated levels of anxiety, the prevalence of anxiety disorder and the need for mental health care services (Burkhardt et al., 2003; Burkhardt & Loxton, 2008; Burkhardt et al., 2012; Cortina et al., 2012; Muris, Du Plessis, & Loxton, 2008; Muris et al., 2006; Visagie et al., 2013; Williams et al., 2008; Zwemstra & Loxton, 2011), which were confirmed in consultation with NGO representatives.

Group consultation sessions with children from the priority population indicated one ***mismatch in the mid-term goal*: *the reduction of avoidant behaviours***. Children revealed *everyday exposure to realistic and dangerous* threatening experiences, such as violent crime. The researcher established that, in this context, avoidant behaviour is often a constructive safety mechanism and serves a protective function. The DUTCH prevention programme session content is not tailored for this context, but for a context that is primarily safe with most avoidant behaviour based on unrealistic fear (as communicated by its developers). During consultations with children, it became evident that they were unsure of how to apply

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CBT-based skills and exposure within a context associated with *very real threats in daily living.* This contextual mismatch could result in dangerous outcomes as children associated CBT-based skills not only to the reduction of maladaptive avoidance but also to real threats (e.g. confronting criminals and fighting them off) as the distinction is not made in the DUTCH programme between unrealistic and realistic fears.

The psychoeducational aims in the **(ii) *theory of change*** were considered matched with the new priority population. Particularly the proposition that cognitions underpin emotional and behavioural responses and thus experienced anxiety was explored in terms of the theory that altering cognitive, emotive and behavioural processes will enhance adaptive coping and reduce anxiety levels. However, in terms of the *age group* for which change was anticipated, observations during group consultation sessions pointed to *potential cognitive developmental differences*, possibly exacerbated by a *lower educational and literacy level*, that rendered the more abstract and hypothetical mental actions of the programme content and delivery inappropriate for children in the 7-8-year age group of the new priority population. The **(iii) *characteristics of the new priority population*** were mismatched in terms of socio-economic status, socio-political background, educational level, environmental characteristics, parenting and disciplinary practices, developmental level, and culture and language.

In terms of the programme **(iv) *input***, the researcher identified mismatches between the SCAS-C and SCAS-P *outcomes measures* and the new population. The SCAS outcomes measures had been used with Afrikaans-speaking populations (Mostert & Loxton, 2008; Muris, et al., 2002; Perold, 2001;) and was deemed appropriate for use in the current study. However, pre-intervention focus group and group consultation sessions indicated a number of *linguistic and interpretive inconsistencies* between items on the measures and the priority population. The programme implementation was mismatched with the new context in terms of the *shortage of clinically trained masters level therapists* in the South African context with a need for mental health interventions that can be delivered by non-clinically trained facilitators. This was associated with a mismatch in the *amount of initial training and supervision* that would be required for non-clinically trained facilitators. *Participant literacy and available resources* were mismatched with an identified lack of parental / guardian time and financial resources to assist with home exposures and reward systems. Furthermore, the *delivery sites* were mismatched with the current study focusing on delivery in semi-rural wine farm aftercare centres that presented a number of logistical and practical challenges not presented by school-based intervention delivery, such as long travel distances, multiple

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delivery sites, lower participant-venue ratios as well as noisier and less-structured environments. Importantly, logistical and educational issues mismatched the delivery of the programme during afternoons after school. Finally, *funding* in a South African context was anticipated to be mismatched with greater demands on creative delivery designs.

In terms of **(v) *output***, a number of mismatches were identified. The *number of sessions, duration of sessions and period of delivery* were mismatched with the new context due to logistical and contextual challenges (kindly refer to Section 8.3.2 for a description of observed barriers prior to adaptation), developmental considerations and availability of resources. The [6]*FEAR plan was mismatched* with the new priority population on three levels: 1) the Afrikaans word for 'fear' was discovered to exclude *culturally determined definitions of social anxiety*. Children in the new context indicated that the word 'fear' was inappropriate for social anxiety as the word 'shy' was used as a separate label for an anxious experience of a social nature with somatic symptoms, 2) pre-intervention focus group session and group consultations additionally indicated a tendency for the label of 'fear' to be construed as a socially unacceptable or inappropriate response to certain threatening situations wherein children indicated a *preference for anger* (the fight response) over fear (and its flight or freeze responses), and 3) consultations with NGO representatives indicated that the concept of *rewarding participation* and completion of homework was mismatched with parenting practices in the new priority population and that the idea of self-reward was not common (reference to the 'R' in the 'FEAR' plan). Additionally, in the context of long working hours, low income and semi-rural environments, including the *stressor of rewards* for children was mismatched.

The *homework tasks (STIC)* were considered appropriate and necessary for successful delivery of the programme, however *parental rewards for completion* and the focus on reading and writing were mismatched. Consultation with NGO teachers and children confirmed lower levels of literacy. In terms of homework tasks that required exposure with the assistance of parents, the researcher had to consider once again the *time resources* that were mismatched in the new context. The outputs of *written communication* to parents three times during the delivery of the programme and the *independent completion* of both child and parent self-report outcomes measures were considered mismatched due to varying levels of literacy.

[6] The FEAR plan acronym: **F**eeling frightened? **E**xpecting bad things to happen? **A**ctions and **A**ttitudes that can help. **R**esults and **R**ewards.

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5.1.4.2 Step 5.2: Surface structure level mismatches

Kindly refer to Table 8 in Appendix I for a visual presentation and supporting detail of the mismatches. On the *surface structure level*, mismatches between the DUTCH prevention programme content and delivery processes and the new priority population mirrored the mismatches in the model. These identified mismatches were grouped according to: (i) cultural and contextual fit, (ii) acceptability, (iii) language and metaphors, (iv) intervention messages, intervention materials and activities, and (v) mode and location of delivery.

(i) *Cultural and contextual* fit: observations of group consultations indicated mismatches in a *protocol for assertiveness*. The DUTCH prevention programme protocol outlined guidelines for the management of assertive behaviour amongst Dutch children that was not found amongst children in the new context. Children demonstrated discomfort and reserved behaviour while they were confronted with the foreign experience of participation in research and psychological intervention, illustrated by their inhibited participation in activities during consultation sessions. Significant *differences in everyday experiences* between the original Dutch and South African semi-rural farming environs resulted in mismatched *content themes, metaphors and examples* that were not relatable and did not accommodate *the high threat of violence and crime*, the *low socio-economic status* of children, or the *interests and experiences* of children in the new context. In considering cultural norms, a *tendency for ridicule* amongst children of the priority population was observed, particularly in response to emotion or behaviour considered a 'weakness'. This observation mirrored the observation that anger may be viewed as a more appropriate response to a threat than fear or sadness, and therefore resulted in mismatches in a protocol that did not accommodate this tendency.

During group consultations, it was noted that the **(ii) *acceptability*** of session content and delivery processes of the DUTCH prevention programme was low, indicated by a *lack of motivation* to attend sessions, *disciplinary problems*, *disengaged and bored participation* and the *lack of rapport building*. The delivery of programme sessions by an inexperienced facilitator (despite training in the DUTCH prevention programme and supervision) indicated a mismatch in the *training and protocol materials* that would need to be tailored for the mode and level of delivery required in the new context.

A number of mismatches were identified between the **(iii) *language and metaphors*** of the (translated into Afrikaans) DUTCH prevention programme content which necessitated colloquially translated materials and an exploration of culturally sensitive metaphors and examples. One important metaphor that was found to be mismatched during consultations

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with NGO representatives and children was the *metaphor of the 'cat'*. This mismatch was based on the fact that pets were not often kept or considered symbols of strength. The 'lion' was explored and also rejected in consultations and the researcher was tasked with finding a suitable alternative.

In terms of ***(iv) intervention messages, intervention materials and activities,*** *intervention messages* were mismatched on two levels: 1) children in the new context were *not assertive* and it was noted that direct messages of self-efficacy and empowerment were required in the new context, 2) the *underlying message that a child's environment does not hold many realistic fears* and that children should adapt cognitive, emotive and behavioural responses was not matched with the new context. *Intervention materials and activities* were mismatched in terms of *complexity* (developmentally not suitable), *lacking interactive and child-friendly activities*, *reliance on reading and writing*, *limited guidance and practical instructions on the delivery* of session content in the protocol, and *session structure* that did not facilitate learning in the new context.

Finally, the **(v) *mode and location of delivery*** were mismatched as the new context required changes in the *characteristics of the delivery person* (facilitator instead of therapist), the *channel of delivery* (less or no reliance on manuals that require higher literacy levels), the *location of delivery* (overcrowded, under-resourced, noisy and disruptive aftercare facilities in disadvantaged environments on semi-rural South African farms instead of resourced schools in a first world context) and the *speed of delivery* (brief and intensive delivery being more suited to the context than delivery as usual of 12 weekly sessions).

It is believed that the identification of mismatches described in Sections 5.1.4.1 and 5.1.4.2 facilitated meaningful changes in the DUTCH programme model and materials that resulted in a context-specific programme, the *Ek is Dapper* (*BRAVE programme* for the purpose of the current study) anxiety prevention programme.

5.1.5 Outcomes of Step 6 of the contextual adaptation based on Card et al. (2011)

Adaptation of the DUTCH programme model based on deep structure mismatches

The researcher utilised the information gathered in Steps 1 to 5 to adapt the DUTCH prevention programme model according to identified mismatches in an attempt to enhance its fit with the new context and priority population. The adapted programme model may be viewed in Figure 5 on page 87.

The **(i) *mid-term goal*** to reduce avoidance behaviours was adapted to the *reduction of avoidant behaviours in context* – practically, this meant that in the problem-solving session of

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the programme, children would be taught to differentiate between whether (in the immediate moment) fears were realistic or unrealistic. In terms of the mismatches in the **(ii) *theory of change*** due to potential developmental and literacy lags that made programme content and delivery inappropriate, the *minimum age for participation was changed to 9 years*.

Programme content and delivery processes were adapted to be sensitive to the identified mismatches in the **(iii) *characteristics of the new priority population*** of which examples may be seen in Section 5.1.6.

Identified **(iv) *input*** mismatches were considered and it was decided to *CCA the SCAS outcomes measures* in order to address linguistic and cultural mismatches. The shortage of clinically trained masters' level therapists in South Africa resulted in an adaptation to utilise *non-clinical counsellors (programme facilitators)*. This adaptation necessitated the development of a *more detailed, scripted protocol* (method based on Visagie, 2016) and *more intensive initial training and supervision*. Mismatches in *literacy levels* of parents and children resulted in adaptations that (1) removed the requirement for reading and writing in programme participation, and (2) facilitated the completion outcomes measures by means of scribing by trained data collectors. Considering the identified contextual difficulty related to *parental involvement* in the programme as well as literature that does not indicate enhanced outcomes with parental involvement (kindly refer to Section 2.1.5), the researcher excluded parental involvement and adapted the model to include *peer-based social support*. The parental provision of rewards was adapted to a *programme-based reward system*.

In terms of identified **(v) *output*** mismatches, the FEAR plan was replaced by the *I CAN choose plan* – I can choose in any situation to ***C**alm down my feelings*, ***A**dapt my thoughts* and *make **N**ew plans* (see Figure 7, p. 90). The homework tasks (STIC) were kept as part of the new programme model; however parental involvement was removed. The written feedback at three points of the programme delivery process was replaced by a *verbal introduction meeting and verbal feedback sessions* at the end of programme implementation. The adaptations of the programme model resulted in a brief, intensive 8-session group-based programme delivered over a period of two weeks to groups of 4 children.

5.1.6 Outcomes of Step 7 of the contextual adaptation based on Card et al. (2011)

Adaptation of the DUTCH programme materials based on surface structure mismatches

After the researcher made adaptations to the model of the DUTCH programme, renamed the intervention as the BRAVE programme and identified contextual adaptations to be implemented, she commenced Step 7. Find supporting information in Table 9, Appendix J.

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On a ***cultural and contextual*** level, examples of adaptations included the development of context-specific facilitator guidelines on creating a safe and trusting environment, best- practice disciplinary approaches and inclusive delivery strategies for the new priority population.

Content themes were adapted to *reflect everyday experiences* of children – with examples of children similar to them who live on farms. The researcher focused on content that would illustrate the *difference between realistic and unrealistic fears*, and formulated coping responses aimed to address both. In response to an *observed culture of ridicule* amongst children in the new priority population, the researcher adapted the content and delivery process to *facilitate a trusting environment* where children who participated would not fear potential derision (as this would be vital to the creation of group cohesion, an important element of group-based programmes). This was done by 1) setting up a *group contract* in Session 1 in which confidentiality and respect – particularly not ridiculing one another – were focal points, 2) in consultation with the supervisor of this study, a *positive programme message* of "everyone is different" was included to foster understanding and empathy, 3) the inclusion of a narrative in the form of a boy named *Dapper Donovan* (Brave Donovan) who was the subject of ridicule. Children would apply skills taught in the BRAVE programme to help him overcome his fears (kindly refer to Figure 6, p. 89 for an example of one if his narrative), and 4) the inclusion of activities where the *facilitator models* 'weaknesses' to open discussion and trust. .

The mismatches identified between the ***language and metaphor***s of the (translated into Afrikaans) DUTCH prevention programme content and the priority population were addressed. An example of adaptations made was the researcher's decision to *include both the words 'scared' and 'shy'* in programme materials to address the definitional difference between the two within the priority population. The new priority population additionally utilised a particular colloquial version of formal Afrikaans with context-specific words and phrases, such as an Afrikaans word that loosely translates into '*scaredy'*. The researcher consulted the study supervisor in reviewing elements of the translated content and included *colloquially tailored and accessible language*.

The researcher also explored a number of *alternatives to the 'cat' metaphor* and consultations with NGO representatives and children rendered the lion and the superhero inappropriate. The researcher then made the decision that, since self-efficacy was an

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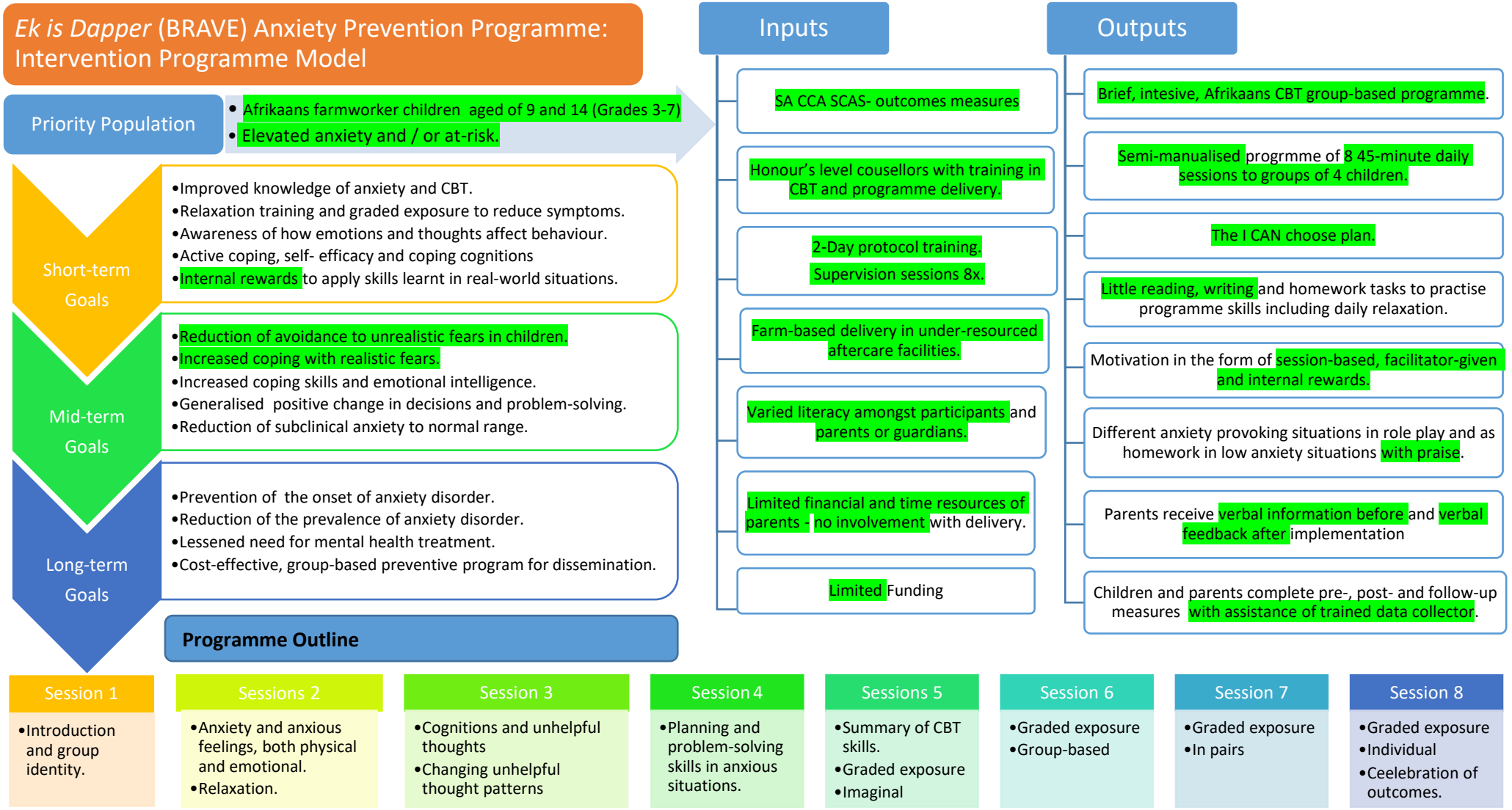

Figure 5. Researcher developed model for the adapted BRAVE programme.

Note: Adaptations from the DUTCH programme model are highlighted in green in Figure 5 above.

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important aim in the adapted programme, *the self as metaphor* would be most appropriate and changed the name of the programme from the DUTCH *Dappere Kat* (Coping Cat) to the *I am Brave* (BRAVE for the purpose of this dissertation) programme. This metaphor was supported by the inclusion of narratives of a boy (*Dapper Donovan* – Brave Donovan) and a girl (*Dapper Danica* – Brave Danica) from a similar context and relatable difficulties as alternatives to the 'cat' metaphor.

The mismatches in the ***intervention messages*** were addressed in the change of the programme name and the focus on the development of *coping skills to address both realistic and unrealistic fears* with the distinction between when avoidance behaviour is in response to unrealistic fear and when it is a safety response to a dangerous situation.

Intervention materials and activities were noted as mismatched in terms of complexity (developmentally not suitable) and a lack of interactive and child-friendly activities. Adaptation *simplified terminology and writing* in children's workbooks, and necessitated *scripted instructions* in the facilitator's manual to: 1) *simplify delivery* by the removal of complex descriptions and examples and including simplified, colloquial language familiar to the children, 2) *scaffold the delivery* of content to simple, step-wise learning, 3) include *acronyms* to simplify the acquisition of skills, and 4) ensure *physical, interactive activities and games* to make the delivery more interactive and child-friendly. *Variation in literacy* was addressed by reducing the use of the participant manual, increasing verbal and visual (in the form of posters and pictures) delivery, and ensuring a choice in verbal, pictorial and written completion of homework.

The mismatches in the ***mode and location of delivery*** were addressed. In response to the *characteristics of the delivery person*, the provision of more intensive training and supervision, as well as a fully scripted and detailed facilitator manual were included. The *channel of delivery* mismatches resulted in adaptation to delivery that was interactive with varied (but less use) of workbooks. The *location of delivery* was adapted to the aftercare facilities on farms as a means to evaluate the potential enhanced accessibility of community-based delivery. As these environments contained a number of contextual and logistical concerns in terms of whether children (who travel long distances from school) would have enough time and energy to complete sessions and adhere to the programme (Kindly refer to Section 8.3.2 for observed logistical barriers), the mode of delivery was adapted to a brief and intensive format.

Finally, the researcher considered the necessity for cross-cultural adaptation of the

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programme outcomes evaluation measures, the outcomes of which are reported in Section 5.2.

BRAVE DONOVAN

Donovan is on his way home with his friends on the back of the farm truck. It was a long, boring day at school and Donovan decides to make things a bit more fun. He is usually really shy even though he is good at sport and gymnastics. But today, he has made a plan to impress everyone. He decides that he will wait until everyone climbs off the truck, and then he will throw his suitcase out and jump after it, summersault through the air before landing on his feet just like Mr Hendricks has taught him.

The moment comes, and Donovan takes the risk even though his tummy is making wild turns. He jumps through the air, gives a loud yell to draw everyone's attention and lands perfectly on his feet. All the children clap for him, and some shake their heads as if they can't believe what he just did. Donovan decides that he is going to play it very cool - he picks up his bag casually and swaggers down the path. And just at that moment, his foot gets stuck in a grass root and he falls - face down - smack onto the ground. As he lies there, his mouth filled with dust, he hears everyone laugh at him.

One child says to him: 'That'll teach you to be wize.'

Figure 6. Example of the *Dapper Donovan* narratives used in the BRAVE programme

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Figure 7. Example of the **I CAN choose** poster used in the BRAVE programme.

Note. Translation of content from the top: I am Brave: Think of positive plans and relax. I can choose plan! I can choose what I feel, think and do in every situation! I CAN choose: Calm down my feelings. Adapt my thoughts. Make New plans.

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5.2 Outcomes of Step 7 of the contextual adaptation Suggested by Card et al. (2011): The cross-cultural adaptation of the outcomes measures

The 7 iterative steps applied in the CCA of the SCAS-C and SCAS-P produced context-specific, Afrikaans versions of the outcomes measures tailored for the priority population, that were used in *Phase 2* of the current study. The necessity of rigorous qualitative exploration of translated measures to identify issues that may impact the validity of outcomes, such as cultural-linguistic interpretations and familiarity with test taking conventions, was underscored in the CCA. The outcomes have been compiled according to information gathered from the *panel reviews* and *community consultations.*

5.2.1 Panel review outcomes

This section offers examples of information gathered and decisions made during panel review meetings. Items of the SCAS-C and SCAS-P are presented, along with outcomes.

Familiarity with test conventions.

Alternative testing methods were recommended based on the *expectation that the level of literacy and educational attainment* for both child and parent community members would influence familiarity and ease with existing test conventions. Recommendations included, for example, the *individual facilitation* of reading and responding to self-report outcomes measure items by trained data collectors and the formulation of *standardised explanations of instructions and content.*

Familiarity with language use and content of items and descriptors.

Linguistic, formal Afrikaans translations for Likert scale descriptors: “never, seldom, often and always” were reviewed and *simplified alternative Likert scale descriptors* were formulated for “seldom” (directly translated from Afrikaans: “few times”) and for “often” (directly translated from Afrikaans: “many times”). A number of item descriptors in both the SCAS-C and SCAS-P were considered *potentially linguistically-culturally inappropriate* for use within the priority population and recommendations were formulated by the panel.

Item: “I feel afraid if I have to use public toilets or bathrooms / My child is afraid if he / she has to use public toilets or bathrooms.”

This item was identified for community consultation as the only Afrikaans translation for “public toilets” was considered too formal and unfamiliar for the priority population.

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Item: "I feel scared if I have to travel in the car or on a bus or a train / My child feels scared if he / she has to travel in the car or on a bus or a train."

This item was modified to include a commonly used means of transport, the *mini-bus taxi* and *farm truck*.

Item: "I am scared of going to the doctors or dentists / My child is scared of going to the doctors or dentists."

This item was modified to include a more commonly utilised health care provider in this community, the clinic-based nurse.

Item: "I am scared of being in high places or lifts (elevators) / My child is scared of heights (e.g. being at the top of a cliff)"

This item was identified for community consultation in terms of familiarity as children in this rural setting rarely had access to elevators and lifts. The often-used formal Afrikaans alternative for "scared of heights" (acrophobia) was replaced with a simpler, direct translation.

Linguistic and semantic differences.

A number of linguistic and semantic differences were identified between the professional and colloquial translations of the self-report outcomes measures, where the latter were considered more culturally relevant, simplified phrasing and wording. Therefore, more familiar, colloquial alternatives for existing, formal Afrikaans words and phrases were included in the pre-final versions of the outcomes measures.

A number of items that posed challenges during the translation and CCA of both the SCAS-C and SCAS-P self-report outcomes measures were identified.

Item: "I feel afraid that I will make a fool of myself in front of people / My child feels that he / she will make a fool of him- / herself in front of people."

An example of a translation that was challenging is the word "fool", which generated several Afrikaans alternatives each with subtly varying meanings. A colloquially used Afrikaans word that translates into "clown" in English as well as the English word "fool" were suggested by the panel for exploration as potential alternatives during community consultations.

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Item: "When I have a problem, I get a funny feeling in my stomach / When my child has a problem, he / she gets a funny feeling in his / her stomach."

In the item above, translated versions of "funny feeling" included two Afrikaans alternatives: "pain" and "funny". Both were included for review during community consultations.

Item: "I am scared of dogs / My child is scared of dogs."

The use of "dogs" in this item was identified for exploration during community consultation as dogs are generally not kept as pets by this community, but as watch dogs by some farmers and are feared as part of their function on farms and thus may result in higher ratings due to context-specific realistic fear.

Item: "I have to keep checking that I have done things right (like the switch is off, or the door is locked) / My child has to keep checking that (s)he has done things right (like the switch is off, or the door is locked)"

The Afrikaans translation of the word "checking" in the item was considered quite formal and unfamiliar. Thus, it was replaced with a simpler alternative.

Item: "I can't seem to get bad or silly thoughts out of my head / My child can't seem to get bad or silly thoughts out of his / her head."

The word 'silly' presented difficulty in translation as more accurate Afrikaans alternatives were deemed too formal and unfamiliar, and the simplified alternatives presented the connotation of being unintelligent / nonsensical. The closest colloquial alternative was identified for exploration during community consultation.

5.2.2 Community consultation outcomes

This section offers examples of information gathered in the verification of the translated and adapted pre-final versions of the outcomes measures during community consultations.

Test convention familiarity.

Both parent and child consultants indicated a *preference for facilitated individual and assisted completion of outcomes measures* during which items were read and answers filled out for them. *Simplified Likert-scale descriptors were preferred* to formal Afrikaans translations as they were readily understood and easily differentiated. *Parent consultants communicated higher levels of discomfort* associated with responding to self-report measures

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presented due to lower levels of familiarity with test conventions. *Child consultants were more familiar and at ease* with test conventions, supported by statements such as: "This is easy. It's just like school." Additionally, it was noted that parent consultants more often *failed to recall the underlying constructs* (anxiety-related symptoms) of measure items whereas child consultants more readily indicated cognisance of the intended purpose of the measure.

Concrete vs abstract items.

It was noted during consultations that parents and children demonstrated varied levels of familiarity with and ease in responding to either concrete or abstract item descriptors. Both parent and child reviewers were *confident and accurate in their responses to concrete items,* for example:

Item: "I feel scared if I have to travel in the car or on a bus or a train or a taxi. / My child feels scared if he / she has to travel in the car or on a bus or a train or a taxi."

Items of a similar concrete nature were easily understood and related to symptoms of fear or anxiety.

Item: "I can't seem to get bad or silly thoughts out of my head. / My child can't seem to get bad or silly thoughts out of his / her head."

Abstract items like the one above that required interpretation consistently posed difficulty in comprehension, response formulation and interpretation. Kindly see Section 5.2.3 for more examples.

5.2.3 Cultural relevance of cross-culturally adapted item descriptors

Consultants assisted in evaluating the cultural relevance of translated, CCA items.

Verification of context-specific content and colloquial alternatives.

Alternative, colloquial words and phrases, as well as context-specific examples suggested during the panel reviews, were verified for construct equivalence and cultural relevance, and *were accepted*. Examples included the addition of context-specific descriptors, such as "clinic nurses" in items that refer to health care providers and "taxis" in items that refer to general transportation. Consultations confirmed that a few descriptors in items presented *difficulties in cultural relevance,* for example:

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Item: "I am scared of being in high places or lifts (elevators)." (SCAS-C)

Most child consultants had limited first-hand experiences with lifts and elevators as used in this item and were unfamiliar with both the English (often used colloquially by Afrikaans-speakers) and Afrikaans words for "lift" and "escalator". However, descriptions of both resulted in immediate recognition and subsequent ease with responding to the item. As a result of this information, it was concluded that cross-cultural validity of translated self-report measures may be enhanced by the inclusion of standardised descriptions or pictures of items where the content is familiar, but available or familiar words within a new context or language are not. Several *potential cultural relevance concerns* that were identified during the panel reviews were *repudiated during consultations*. For example:

Item: "I feel scared if I have to sleep on my own."

Concerns were raised by the panel regarding the cultural relevance of this item in the separation anxiety subscale of the SCAS-C as it was assumed that children within this community seldom slept alone, because homes were small and bedrooms generally shared by entire family units. Yet, consultations indicated that children had frequent experiences of sleeping alone. This resulted in the acceptance of such items as culturally relevant, contrary to panel expectation.

Culture-bound interpretation of physiological symptoms of anxiety.

Both parent and child consultants consistently presented difficulty in relating physiological symptoms, such as elevated heart rate or palpitations, and dizziness or discomfort in the stomach to emotional distress or anxiety in the panic sub-scale. Interpretations of items containing physiological symptoms as manifestations of anxiety were rejected, for example:

Item: "When I have a problem, I get a funny feeling in my stomach. / When my child has a problem, he / she gets a funny feeling in his / her stomach."

This item consistently generated an interpretation related to monthly cycles of menses amongst female parent and child consultants.

Item: "I suddenly feel as if I can't breathe when there is no reason for this. / My child complains of suddenly feeling as if (s)he can't breathe when there is no reason for this."

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The above item consistently generated an interpretation related to either a medical condition or physical activity. Even after specific prompts, "So, could [this item] relate to feelings of fear in the body without a reason?", consultants would deny the association between the item and the construct of anxiety, with statements such as: "There must be a reason … like he's been running around too much or was out in the sun too long," and "There can't not be a reason. Feeling scared can't be a reason."

Culture-bound interpretation of social phobia.

Child consultants consistently chose the Likert-scale response *never* to a specific item in the social phobia subscale:

Item: "I feel afraid if I have to talk in front of my class".

This response was contrary to information gleaned during consultations with NGO representatives, which indicated that social phobia (particularly public speaking), was prominent amongst children within this community. During consultations, children related symptoms of sweating, trembling, increased need for urination, blushing and heart palpitations during public speaking. However, the words "afraid" and "scared" were considered inappropriate labels for these physiological responses, and the word "shy" was consistently preferred. Child consultants indicated a *fundamental difference in labelling the experience of anxiety symptoms related to social phobia* in their culture and argued that the word "shy" was a more appropriate description than "afraid" or "fear" which were unrelated to the experience. When the word "shy" was included in the self-report measure item, children's selection rates of *always*; *many times*; and *few times* increased.

Understanding vs cultural-contextual interpretation.

The main outcome from the consultations was the awareness that the accurate *understanding of translated, CCA item descriptors did not equate to an interpretation* consistent with the intended constructs. The wording and phrasing of a number of translated, CCA items were consistently and accurately understood, but when consultants were requested to offer examples of understanding, interpretations unrelated to the intended construct were revealed.

This was most evident in responses to six items in the Obsessive-Compulsive Disorder subscale, which were consistently interpreted as related to either issues of *safety and hygiene*, *issues of discipline and punishment* or *issues of morality* and in 7 items of the Panic

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and Generalized Anxiety Disorder subscales, which were consistently related to *fitness and physical exertion*. Examples of these items are presented below.

Item: "I have to keep checking that I have done things right (like the switch is off, or the door is locked) / My child has to keep checking that (s)he has done things right (like the switch is off, or the door is locked)."

This item was readily understood by both child and parent consultants, but interpreted as either a safety concern or in terms of expected chores. Examples provided by two child participants were: "If I don't check the door before bed-time, robbers will break in", "If I don't do my chores, I will be punished". An example provided by a parent consultant was: "I tell my child to check the door before we go to sleep, because it is dangerous if it is unlocked."

Item: "I can't seem to get bad or silly thoughts out of my head / My child can't seem to get bad or silly thoughts out of his / her head."

The words "bad" and "silly" in the above item resulted in interpretations of morality. The word "bad" was interpreted as either sexual or criminal thoughts and "silly" as either unintelligent or irrelevant thoughts. Examples provided by child consultants were: "If I have bad thoughts, I think of hurting or hitting someone else", "I think of boys in *that way*" and "If I have silly thoughts, I am being stupid." Examples provided by parent consultants were: "My child is too young to think about boys," and "If a child thinks about breaking the law or hanging out with the wrong crowd and getting into trouble."

Item: "I have to think of special thoughts to stop bad things from happening (like numbers or words) / My child has to think special thoughts (like numbers or words) to stop bad things from happening."

The above item was consistently understood, but interpreted in terms of schooling expectations, for example a child consultant stated: "I have to practise my sums and my vocabulary, or I will fail" and a parent consultant stated: "My child has to practise his / her sums and vocabulary so that he/she doesn't fail. School is important."

Item: "I have to do some things over and over again like washing my hands, cleaning or putting things in a certain order) / My child has to do some things over and over again like washing his / her hands, cleaning or putting things in a certain order)."

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The above item again was understood, but was interpreted in terms of expected chores, for example a child consultant explained: “If I don’t clean up after myself, mommy will give me a hiding or scream at me”, and a parent consultant stated: “My child must help around the house. She knows she will get into trouble with mom if she doesn’t.”

Item: “My child has to do certain things in just the right way to stop bad things from happening.”

Parent consultants indicated that the item above was related to disciplinary concerns, for example: “My child must do his / her chores to avoid getting a hiding” and “My child must make the right choices so that he / she does not get into trouble with the law.”

5.3 Discussion of the outcomes of the contextual adaptation of the DUTCH programme

It is increasingly supported by evidence that the cross-cultural adaptation (CCA) of programmes may enhance the effectiveness of using interventions in new contexts (Rathod et al., 2018). Barrera, Berkel and Castro (2017) state that CCA methods need to focus particularly on local adaptations of programmes that enhance engagement and sustainability. Ideally, the best possible evidence-based response should be complemented by adaptations consistent with the individual characteristics, ethnicity, social and cultural contexts, educational and developmental levels, and beliefs and preferences of a new priority population (Castro-Camacho et al., 2018). Adaptations should therefore move beyond the label of being ‘cross-cultural’ as the context of a new priority population of children (as in the current study) is best viewed from the lens of a whole-systems approach as outlined in the frameworks proposed by Bronfenbrenner (1986), and Bronfenbrenner and Morris (2006).

Lachman et al. (2016) argue for local, cultural adaptation of programmes for families in disadvantaged contexts in South Africa. In a multi-cultural society such as South Africa with vast variations in socio-economic-status, educational levels and ethnicity within a complex socio-political history, a blanket referral to culture as the vantage point for adaptation would be inadequate and inaccurate. Although, ideally interventions should target multiple levels of the ecological systems within which children find themselves, Castro-Camacho et al. (2018) acknowledge that structural adaptations to these contexts are often not feasible. They argue in favour of the modification of responses to contexts with the application of programmes that take the interaction between culture and context into account.

The aim of *Phase 1* of the current study was to make contextual adaptations to a DUTCH anxiety prevention programme to enhance its fit with vulnerable children from a

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specific, disadvantaged South African semi-rural, farming context. This was achieved by addressing *four specific objectives*, namely to *translate* the programme content into Afrikaans, to *adapt the programme cross-culturally*, according to *developmental considerations and child-friendliness* for children within the new priority population, and according to the *new environmental context*. The contextual adaptation hoped to address potential barriers already identified in the South African context, such as inaccessibility and lacking resources for mental health intervention delivery (Burns, 2011; Mokitimi et al., 2018; Tomlinson et al., 2016) that may impact effectiveness, feasibility and acceptability. Consistent with the suggestions by Ferrer-Wreder et al. (2012) and Resnicow, et al. (2000) both deep structure level adaptations (pertinent to effectiveness) were made to the programme model and surface structure adaptations (associated with feasibility and acceptability) were implemented within the 7-step framework of Card et al. (2011). Examples of both levels of adaptation are be presented as illustrations in the discussion of the outcomes of the contextual adaptation implemented in *Phase 1*.

The *importance of community consultation during cross-cultural adaptation* (as suggested by Aarons et al., 2012; Card et al., 2011; Davidson et al., 2013; Sundell, Beelmann, Hasson, & Von Thiele, 2016) was highlighted during the contextual adaptation of *Phase 1*. As suggested by Essau et al. (2013), it was evident during community consultations that researchers are currently still very much reliant on western-based literature to understand child anxiety in non-western contexts, and as Marques et al. (2011) argues often this reliance results in misinterpretation of behaviour and cognition that is normative if viewed within contexts of adversity. CBT intervention researchers are often disadvantaged by a lack of first-hand knowledge of new contexts (Hays, 2006), in which CBT-based tools for the management of anxiety symptoms (that are in fact culturally formulated if viewed from Vygotsky's (1978; 1986) theoretical perspectives) are not so readily transmitted without adaptation (Rathod et al., 2010).

In the current study, an example of how delicately culture and context may impact the application of CBT with new priority populations was illustrated by the information obtained about context-specific definitions of fear and anxiety. Child consultants indicated surprising qualifications to the definition of anxiety and fear that necessitated adaptation of the DUTCH programme model and materials. Child consultants reflected that symptoms of social anxiety were readily identified and often experienced, but unanimously refuted as a form of 'fear' (also presented in the outcomes of the CCA of the SCAS outcomes measures) and that externalising symptoms were contextually preferred over 'weaker' internalising responses to

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threat. As a result of this information, a core component of the DUTCH programme (also of all versions of the Coping Cat programme as outlined in Podell et al., 2010), the FEAR plan was adapted to the I CAN choose plan (Kindly refer to Figure 7 on page 90 and Section 6.8 for details). Additionally, the preferred Afrikaans word for social anxiety symptoms, namely *shy*, was included in all programme materials. In the context of adversity faced by the priority population, the researcher drew on the Bandura's (1988) concept of *self-efficacy*, already associated with effective CBT programmes for children (for example, Kendall et al., 2005; Muris, 2002) with positive programme messages in the I CAN choose plan that stipulated personal choice in response to the impact of adverse experiences. Also, this adaptation allowed for the removal the reliance on (parental provided) rewards in line with the argument by Edmunds et al. (2016) for consideration of its inappropriateness in CBT programmes delivered within disadvantaged communities.

The outcomes of the current study pointed to the *importance of developmental considerations and child-friendliness in adaptation* of programmes for use in new child priority populations. For example, consultations revealed that the literacy and developmental level of participating children in the current study were not fully matched with the content and delivery processes of the DUTCH programme. Children within the 7-8-year age group, who are only just within Piaget's (1972) concrete operational period of development, appeared unable to engage with the abstract cognitive training included in the CBT-based programme despite its suitability for this age group in other contexts. This observation was consistent with concerns raised by Suveg et al. (2009) regarding the cognitive-linguistic readiness of some children to participate in potentially complex cognitive components of CBT. With this in mind, the researcher opted for two adaptations: the first was to exclude children in the 7-8-year age group from the priority population and the second was to implement culturally sensitive and child-friendly adaptations to address the observed developmental mismatches.

An example of such adaptation was the inclusion of narratives of two relatable characters in the delivery of CBT content in the BRAVE programme. *Dapper Donovan* and *Dapper Danica* tied in with the Bandura's (1977) suggestion that children are more likely to learn via observation than instruction. The characters were used to model anxious, avoidant responses to unrealistic fears, which changed to more adaptive, coping responses as they progressed through the programme (Kindly refer to Figure 6 on page 89 for an example of one of the narratives). In support of this adaptation, the use of storytelling has been suggested as a child-friendly, non-threatening means of delivering CBT (Stallard, 2002). The narratives

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were supplemented by a scripted facilitator self-disclosure of an unrealistic fear, facilitator modelling of anxiety and the application of programme skills by the facilitator to overcome fear / anxiety symptoms. These programme adaptations tied in nicely with Vygotsky's (1978) suggestion of the value of reciprocal learning in the *zone of proximal development*. The social interactions between the characters, the facilitator and the children who collectively applied programme-based skills to address fear and anxiety also allowed for the development of self-efficacy (Bandura, 1988) when children acted as more competent persons with the skill to assist the facilitator and characters in overcoming their fears. This framed the relationship with the facilitator as collaborative and empathetic and allowed for experimentation and active involvement with the facilitator, potentially key to child-friendly, effective delivery of CBT (e.g. Kendall et al., 2012; Muris, 2002; Podell, et al., 2013; Stallard, 2002).

With other similar developmentally informed, child-friendly adaptations to psychoeducational components, the researcher attempted to enhance the accessibility and utility of the BRAVE programme even more with the provision of *multiple opportunities for exposure*, both vicarious in the form of modelling by the characters and facilitator, and directly in the form of programme designed, contextually themed systematic desensitisation (application of Rachman's, 1977, theory), both of which have been suggested as suitable for use with children (e.g. Muris, 2007).

The importance of considering the contextual environment in the adaptation of interventions was illustrated by the unique barriers to delivery encountered in the contextual adaptation in *Phase 1*. The original aim of the current study was to enhance accessibility and reduce cost by means of community-based implementation. Consultations, however, indicated numerous barriers including scheduling issues, travelling time from school and limited time for session implementation during school terms. This called for *creative, context-specific adaptations to the delivery format* of the programme to enhance feasibility that resulted in a brief, intensive delivery format of 8 sessions that would be delivered over two weeks. This adaptation was, as far as the researcher could ascertain, a first in anxiety prevention programme delivery (in the South African context). However, its choice was supported by a growing body of literature in support of its potential effectiveness and feasibility as an anxiety treatment format (Öst & Ollendick, 2017), its potential to ameliorate demands on resources (Elkins et al., 2011; Storch et al., 2007), its enhanced suitability for real-life settings (Bekker et al., 2017) and its child-friendliness and developmentally appropriateness for children (Santucci, et al., 2009).

It was hoped that the contextual adaptation in the formulation of the BRAVE

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programme would enhance acceptability as it is believed that programmes that are considered meaningful and satisfactory in a new priority population are more likely to result in engagement, meaningful change and effectiveness (Castro, Barrera, Holleran Steiker, 2016; Lal, et al., 2018).

Of course, *fidelity to core components* responsible for the effectiveness of an intervention is always a concern in adaptation; however, the researcher felt that the guiding framework suggested by Card et al. (2011) facilitated transparency in this consideration. The researcher additionally drew on up-to-date findings in support of programme model adaptations to ensure that deviations were in line with current best and innovative practice in the delivery of CBT-based interventions to children with elevated levels of anxiety symptoms. The contextual adaptation applied in *Phase 1* of the current study emphasised the importance of framing intervention research against the backdrop of Bronfenbrenner's (1986) ecological systems and PPCT theories (Bronfenbrenner & Morris, 2006) to generate a holistic view of the multiple contexts that may simultaneously enhance risk for the development of anxiety problems and provide opportunities for creative interventions that utilise the strengths of those contexts. This theoretical framework allows for consideration of more than just context, but for proximal processes – the repeated interaction between the child and multiple contexts that frame development (Tudge, 2009) – that may be created by contextually adapted interventions that speak to the multiple systemic contexts of children.

5.4 Discussion of the outcomes of the cross-cultural adaptation of the SCAS outcomes measures

The outcomes of the 7-step iterative translation and CCA of the SCAS-C and SCAS-P self-report outcomes measures for use in the effectiveness evaluation of *Phase 2* of the current study highlighted the importance of considering *contextually determined limitations* to the transcultural (or trans-contextual) use of evidence-based outcomes measures. It is often assumed that well-translated self-report measures test the same construct in the same way (Stevanovic et al., 2017) and therefore validation of construct validity is frequently restricted to face validity, expert review and statistical support.

In the current study, the qualitative differences between the professional, formal Afrikaans translations and the context-specific colloquial translations provided by social workers with extensive experience in working with the priority population firstly illustrated the importance of this limitation. Furthermore, community consultation in the current study has *challenged the assumed semantic and construct equivalence* of translated items, as

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illustrated by the variance between panel expectations and community interpretations that would otherwise have gone undetected. Particularly, these outcomes indicate that researchers should be sensitive to *unexpected sub-cultural interpretations* of words and phrases within items that may affect the relevance of outcomes measures in new, multi-cultural contexts. This was most strikingly illustrated by the discovery that the word 'shy' was considered a more appropriate label for social anxiety symptoms, which allowed for its inclusion in the adapted scale and potentially enhanced reliability in the measurement of this subscale of symptoms in the new context. This ties in with the argument by Campbell and Young (2016) that the challenge in the translation and CCA of existing outcomes measures lies in the *identification of context-specific interpretations* of items that may bring about only partial measurement equivalence and that transportability of self-report measures may be greater across cultural contexts in which the conceptualisation and description of distress is more consistent (Campbell & Young, 2016). Importantly, the understood meaning of a construct should not be presupposed, but evidenced as reliable, particularly in countries where there are diverse socioeconomic and ethnic population groups such as South Africa (Campbell & Young, 2016).

The consideration of both context and culture is essential in the translation and CCA of self-report measures as they present challenges for screening by potentially effecting variations in performance of responders, familiarity with self-report measurement; linguistic usage (Carter et al., 2005) and familiarity with constructs. In the context of the current study, the potentially lower level of literacy and education and limited familiarity with testing conventions (demonstrated by parent consultants) amongst some members of the priority population resulted in the outcomes that Likert-scale descriptors required simplification, that participants in *Phase 2* would need facilitation during the completion of outcomes measures and that the researcher would need to consider the preliminary effectiveness findings with caution due to interpretive problems in more abstract items.

These adaptations were also in line with arguments by Aldridge (2014) that research within vulnerable, marginalised groups pose the potential threat that conventional methods may emulate discrimination and exclusion already experienced from society. On a practical level, this means that research methods that fail to consider familiarity with test conventions, rely heavily on reading or writing, abstract reasoning and verbal fluency may result in - often unwanted - unfair research practices, which in turn result in unreliable and invalid findings (Aldridge, 2014). Similarly, methods that do not consider the importance of culture and context in the adaptation of outcomes measures may further contribute to the exclusion of

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communities in the development of knowledge about them and may result in gross misrepresentation of issues of their mental health and the effectiveness of interventions (Betancourt, Stevenson, Meyers-Ohki, & Mushashi, 2018).

The current study demonstrated this risk in information gathered from consultations relating to two subscales of the SCAS-C and SCAS-P outcomes measures. Both the OCD and panic subscales presented cultural-contextual interpretative problems. For example, interpretations of OCD and panic subscale items were framed within the multiple ecological systems (Bronfenbrenner, 1986) of children and families in the priority population, including microsystemic authoritarian parenting styles, exosystemic safety concerns related to living in low SES South African contexts with high levels of violent crime, high levels of addiction, pregnancy, gangsterism, truancy and school failure rates, and macrosystemic beliefs about somatisation symptoms, mental health and inappropriate behaviour. Resultantly, items in these subscales were interpreted as relating to discipline, homework and chores, as well as morally evaluated behaviour, none of which relate to symptoms of OCD. On items of the panic subscale, parent consultants regularly indicated that somatic symptoms on items were not related to anxiety or panic, but rather to physical exertion, heat stroke or physiological causes, again unrelated to panic. These outcomes were in line with the suggestion by Essau, Olaya, Pasha, O'Callaghan, and Bray (2012b) that responses to self-report measure items may be limited to culturally and contextually determined knowledge and interpretation, and that therefore outcomes obtained may be less indicative of anxiety than the context in which children live. Importantly items may have mixed cultural meanings or functions in these different contexts (Essau et al., 2011) that should be explored before the general application of translated self-report measures across cultures.

The CCA of the anxiety outcomes measures, the SCAS-C and SCAS-P, of *Phase* 1 of the current study revealed that, despite rigorous CCA of a widely used, well-supported anxiety self-report measure, items within some subscales may continue to present challenges in semantic and construct equivalence. This, of course, had implications for the preliminary effectiveness outcomes evaluation in *Phase 2* for which this measure was adapted. This was in line with the warning issued by Betancourt et al. (2018) of the danger of using unchallenged western outcomes measures to evaluate the effectiveness of interventions in the South African context due to experiential, linguistic and cultural differences.

As the researcher could not, at the time of the study, identify alternative anxiety symptom measures and suspected that contextual-cultural concerns would be found in any translated scales not developed for the South African context (which was beyond the scope of

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this study), the researcher implemented the pilot study of *Phase 2* with these CCA outcomes measures, and was able to contextualise statistical findings cautiously in Chapter 7.

5.5 Integrated discussion of the outcomes of *Phase 1*

The CA study outcomes presented in this chapter were partially intended to make a contribution to the general lack of detailed descriptions of implemented adaptation procedures currently available in the literature. As suggested by Rathod, et al. (2018), research needs to provide enough detail to allow comparisons, to find out what works (i.e. the moderators of adaptation) and to develop evidence-based frameworks to guide the adaptation of interventions. Additionally, this study was in line with the recent call for adaptations to be more localised and context-specific (Castro-Camacho et al. 2018). A suggestion for future research is that CA programmes should consistently be evaluated for effectiveness in comparison with the original programme in order to elucidate the true impact of adaptation on outcomes (Rathod, et al., 2018). Although this was not done in the current study, the preliminary effectiveness, feasibility and acceptability findings reported in Chapters 7 and 8 offer insights into the success of *Phase 1*. The CCA of the outcomes measures indicated the importance of interpreting programme evaluation outcomes results with caution and in context, especially in studies where CCA procedures have not been applied or have not been able to ameliorate all identified concerns. For this reason, the preliminary effectiveness outcomes findings presented in Chapter 7 have been reported with consideration of the potential impact of contextually determined interpretative variations.

5.6 Chapter summary

The outcomes of the contextual adaptation of *Phase 1* of the current study were presented in this chapter. The outcomes of the contextual adaptation of the DUTCH prevention programme were organised according to the 7 steps (as suggested by Card et al., 2011) implemented in the adaptation procedure. The outcomes of the cross-cultural adaptation of the SCAS outcomes measures were presented according to the most pertinent information gathered from panel and community consultations. Discussions of the outcomes were presented. In the next chapter, the researcher outlined the methods of *Phase 2* of the current study – the implementation and evaluation of the preliminary effectiveness, feasibility and acceptability of the contextually adapted BRAVE programme. The presentation of the methods is accompanied by an outline of the BRAVE session goals and content to contextualise findings reported in Chapters 7 and 8.

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CHAPTER 6: *PHASE 2* – PRELIMINARY EFFECTIVENESS, FEASIBILITY AND ACCEPTABILITY EVALUATION PILOT STUDY RESEARCH METHODOLOGY

This chapter provides an outline of the methods used in *Phase 2* of the current study, the programme implementation and preliminary effectiveness, feasibility and acceptability evaluation pilot study. The background and framework for the programme evaluation pilot study are provided, followed by the research design, the inclusion criteria and sampling method, a description of the participants and context, and the randomisation procedure. Next, the procedures followed to obtain permission and ethics clearance, implement the programme and complete programme evaluation measures, evaluate the programme, analyse programme evaluation data and address ethics considerations are described. Finally, the practical implementation and programme outline of the BRAVE programme protocol are provided to contextualise the evaluation findings in Chapters 7 and 8.

6.1 Background and framework for the programme evaluation pilot study

The current study was motivated by a number of considerations: (i) research that identified anxiety problems in similar communities in the Western Cape of South Africa (for example, Mostert & Loxton, 2008; Muris, et al., 2006), (ii) a need expressed by social workers of the collaborating NGO for mental health services and coping skills development amongst children with observed anxiety problems, and (iii) the current dearth of research in the field of preventive anxiety intervention in semi-rural South African contexts.

Sidani and Braden (2011) outline four stages of intervention evaluation of which preliminary effectiveness, feasibility and acceptability evaluation form the first step, followed by efficacy and effectiveness studies, and dissemination. Consistent with this framework, *Phase 2* of the current pilot study aimed to evaluate the preliminary effectiveness, feasibility and acceptability of the BRAVE programme. Pilot studies are often undertaken to explore elements of feasibility, such as rates of recruitment, consent and elements of acceptability (Eldridge et al., 2016; Lancaster, et al., 2004 Thabane et al., 2010) such as of satisfaction with programme content and delivery processes. However, emphasis is frequently, erroneously and unethically placed on statistical significance although pilot studies may not be suitably powered (Whitehead, Sully, & Campbell, 2014; Lancaster, et al., 2004). As an alternative, hypothesis testing should be considered preliminary, interpreted with caution (Lancaster, et al., 2004) and in the context of additional outcomes (in preventive intervention studies), as it is unclear whether symptom-level reduction in anxiety scores really indicate

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prevention in the long run (Barrett & Turner, 2004).

Therefore, the current study argues that a qualitative intervention outcomes evaluation may offer important participant feedback regarding the perceived effectiveness, benefit and usefulness of the piloted intervention. For this purpose, the researcher developed a framework in which preliminary effectiveness was defined as the traditional outcome of a significant decrease in elevated levels of anxiety symptoms. The definition was extended to include a qualitative intervention outcomes evaluation of the perceived utility of the programme, reported acquisition and application of CBT-based coping skills, and generalisation of programme outcomes. This framework is in line with suggestions that programme evaluation studies should utilise and place equal value on mixed methods in response to the multitude of questions pertinent to understanding the 'why' of the effectiveness of interventions (Drabble & O'Cathain, 2015).

Thus, the aim of *Phase 2* of the current study was to evaluate the preliminary effectiveness, feasibility and acceptability of the contextually adapted CBT-based anxiety prevention programme, the BRAVE programme within a semi-rural, disadvantaged farmworker community context.

6.2 Research design for the programme evaluation pilot study

The pilot study of *Phase 2* was exploratory and descriptive in nature, and a mixed methods approach was employed with both qualitative and quantitative data used to evaluate the preliminary effectiveness, feasibility and acceptability of the contextually adapted BRAVE programme.

The quantitative component entailed a quasi-experimental time-series design with a wait-list control group [named the *Immediate Intervention Group* (IIG) and the *Delayed Intervention Group* (DIG) as both groups received the intervention] and pre- and post-intervention measures were implemented to gather data for the preliminary effectiveness evaluation – to establish whether there was a significant decrease in the level of anxiety symptoms (Bless, Higson-Smith, & Sithole, 2013). The application of a delayed intervention control group enhanced the ethics of the study design as it responded to the ethics considerations of the exclusion of vulnerable children from the potential benefits of participation.

The qualitative component of the current study explored participants' and programme implementation observers' responses to the BRAVE programme to, as suggested by O'Cathain et al. (2013) contextualise the outcomes of the statistical programme evaluation. It

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was used to explore the (i) perceived effectiveness, benefits and usefulness of participation, (ii) feasibility of the intervention implementation, and (iii) acceptability of content and delivery processes of the BRAVE programme.

In summary, the mixed methods design of *Phase 2* enabled the researcher to evaluate a number of outcomes: the preliminary reduction in elevated levels of anxiety symptoms, the acquisition of CBT-based coping skills, the feasibility of implementing a contextually adapted preventive intervention programme in a semi-rural South African farming setting, and the acceptability of the content and delivery processes of a contextually adapted programme.

6.3 Inclusion criteria for the programme evaluation of the pilot study

Firstly, only [7]coloured, Afrikaans-speaking farmworker children whose vulnerability was associated with low socio-economic status and related difficulties, and who attended aftercare services provided by the collaborating NGO on farms in the Winelands region of Stellenbosch, were approached for participation in the study. The collaborating NGO had identified context-specific vulnerability in the priority population associated with children not reaching expected levels of development, poverty, difficult home circumstances, truancy, low literacy levels, poor quality schooling, inadequate nutrition and the effects of parental alcohol abuse (information obtained from an NGO information booklet, 2014).

Originally the research protocol of the current study stated that a convenience sample of all assenting children aged 7 to 13 years (Grades 1 to 7), for whom parental consent had been granted, would be screened for anxiety. Although only children with elevated levels of anxiety symptoms would have been recruited for participation, three context-specific considerations led to an adaptation of the original inclusion criteria. Firstly, the contextual adaptation (CA) process described in Chapters 4 and 5 resulted in the revision of the minimum age for inclusion in the study to 9 years (Grade 3). Secondly, one participant turned 14 in Grade 7 but was included in the study as he still fell within the intended pre-high school priority population. Thirdly, logistical limitations of sampling on various farm sites (for example, small numbers of children per site, distances between sites, etc.) resulted in recruitment on only three farm sites at the time of the study. An application was lodged with the Ethics Committee: Human Research (Humaniora) of Stellenbosch University to allow the

[7] Kindly refer to 2.2.1 for a discussion of culture and race as it is presented in the current study.

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researcher to include all assenting children for whom consent was obtained. This application was included in the 1-year follow-up report in which ethics clearance was sought for an extension in the timeline to complete Phase 2 of the current study. This application was approved on 22 June 2016 (Humaniora: HS1186/2016) (kindly refer to Appendix M).

Essentially, the current study was thus adapted from an indicated prevention to a selective prevention intervention where children were included based on their context-specific risk-profile (low SES and exposure to violence, crime and alcoholism, for example) which has been associated with an elevated risk for the development of anxiety problems (Williams et al., 2008) and / or the presence of elevated anxiety symptom levels (Barrett & Turner, 2004). The levels of anxiety that were considered indicative of elevated anxiety were determined by the norms and T-scores formulated by Spence (1998) particularly for the identification of elevated levels of anxiety in both males and females between the aged of 8 and 15. No children were excluded from participation in the study due to an inability to read and / or write as this was addressed by means of trained data collectors who assisted in the completion of outcomes measures and by adaptation of the BRAVE programme delivery to compensate for low literacy levels.

6.4 Participants and study context

All children between the ages of 9 and 14 (Grades 3 to 7) who attended aftercare services offered by the collaborating NGO on three farm sites (Farm 1, Farm 2 and Farm 3) (N = 30) were requested to participate in the BRAVE programme. All children for whom parental consent was firstly obtained (N = 23) initially gave their assented to participate in the study. After which one participant withdrew from the study after screening (n = 1) and one participant withdrew after attending three sessions of the programme (n = 1). The remaining 21 participants (11 boys and 10 girls; mean age 10.72 years, SD 1.70; range 9-14 years) were included in the study for a period of 9 months. Family composition varied significantly with 9 children (42.9%) residing with both parents, 4 children with grandparent(s) (19%), 3 children with one parent and a step-parent (14.3%), 3 children with 14.3 % with a single parent (14.3%), and 2 children with an aunt (9.5%). All 21 participants completed the intervention programme as well as all follow-up measures.

Following recruitment, the researcher randomly assigned the participants in the 9-10-year age group and 11-14-year age group to either an immediate intervention group (IIG) or a delayed intervention group (DIG) on their respective farm sites (kindly refer to Section 6.5 for an outline of the sample division). The IIG participated in the implementation of the

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BRAVE programme first and the DIG participated in the implementation after a period of 4 months. A total of 11 children (7 girls and 3 boys) with a mean age of 10.46 (SD = 1.57) participated in the IIG and 10 children (4 girls and 7 boys) with a mean age of 11.1 (SD = 1.85) participated in the DIG. Data from all 21 participants could be used in the final analysis. Table 10 on page 111 outlines the demographic details of the statistical sample of participants (N= 21).

All participants (N = 21) were children who attended aftercare services offered by the collaborating NGO that provides social, educational, nutritional, health and safety support services to children who live on semi-rural wine farms in the Western Cape of South Africa. Even though these services provided children with access to support, they were positioned in highly impoverished environments and were considered vulnerable due to low socio-economic status, socio-political circumstances, the legacy of Apartheid and lower educational attainment. The socio-political impact of Apartheid and the severe social disparities amongst racial groups in the South African context, where for example farmworker families still carry the long-term impact of the legacy of the Bantu or Black Education Act (Act no. 47, 1953) (Union of South Africa, 1953) and the Dop System, are notable in their contribution to disadvantage and vulnerability in this priority population (Gossage et al., 2014). Additionally, wages for unskilled labour on farms are low (Prince, 2004) and according to social workers who work through the collaborating NGO, families struggled to survive financially and depended a great deal on charity.

For the reasons stated under Section 2.2.1, the researcher limited references to racial classification in reporting the findings of the current study. Findings will henceforth refer to participants as ‘farmworker children’ or ‘farmworker parents / guardians’ or ‘priority population’.

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Table 10

Demographic Characteristics of the Total (statistical) Sample (N = 21) of Participants who were Included in Data Analysis

Characteristics	Number (n) and percentage (%) of participants out of the total sample of participants (N = 21)	Number (n) and percentage (%) of participants in the immediate intervention group (IIG) (N = 11)	Number (n) and percentage (%) of participants in the delayed intervention group (DIG) (N = 10)
Gender:			
Girls	10 (47.62%)	7 (63.64%)	3 (30%)
Boys	11 (52.38%)	4 (36.36%)	7 (70%)
Age Group:			
9-10 years	11 (52.38%)	7 (64.64%)	4 (40%)
11-14 years	10 (47.38%)	4 (36.36%)	6 (60%)
Grade:			
3	5 (23.81%)	4 (36.36%)	1 (10%)
4	4 (19.05%)	2 (18.18%)	2 (20%)
5	5 (23.81%)	2 (18.18%)	3 (30%)
6	5 (23.81%)	2 (18.18%)	3 (30%)
7	2 (9.52%)	1 (9.09%)	1 (10%)
Age in years:			
9	7	4 (36.36%)	3 (30%)
10	4	3 (27.27%)	1 (10%)
11	3	1 (9.09%)	2 (20%)
12	2	1 (9.09%)	1 (10%)
13	4	2 (18.18%)	2 (20%)
14	1	0 (0%)	1 (10%)

Note: Not all percentages add up to 100 due to rounding; IIG = Immediate intervention group; DIG = Delayed intervention group.

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6.5 Randomisation procedure

Randomisation was applied on each of the three farm sites in each of the two age groups: 9- to 10-year younger age group and 11- to 14-year older age group. Participants in each age group and on each farm were allotted to either the IIG or the DIG. The IIGs from Farm Sites 1, 2 and 3, and the DIGs from Farm Sites 1, 2 and 3 were pooled for the statistical analysis (kindly refer to Figure 8 below for a visual representation if the sample division). There were a total of six groups who participated in the study, two groups on each of the three farm sites with one IIG and one DIG on each. The number of children who participated on each of the farm sites in *Phase 2* of the current study was: Farm Site 1 (n = 6), Farm Site 2 (n = 7) and Farm Site 3 (n = 8).

Due to logistical challenges identified during the contextual adaptation study in *Phase 1*, the programme was first delivered to the three IIG groups during two weeks of the July 2016 school holiday with a total of 11 children (n = 11). The programme was then delivered to the three DIG groups during the final two weeks of the fourth term in November 2016 (during which time the NGO indicated participants were already at aftercare services from 12 am onwards or even full day) with a total of 10 children (n = 10). Group sizes ranged from 2 to 4 participants, and the variation in group sizes were caused by the varying number of available children on each of the Farm Sites in each of the two age groups (younger 9-10-year old age group and older 11-14-year old age group).

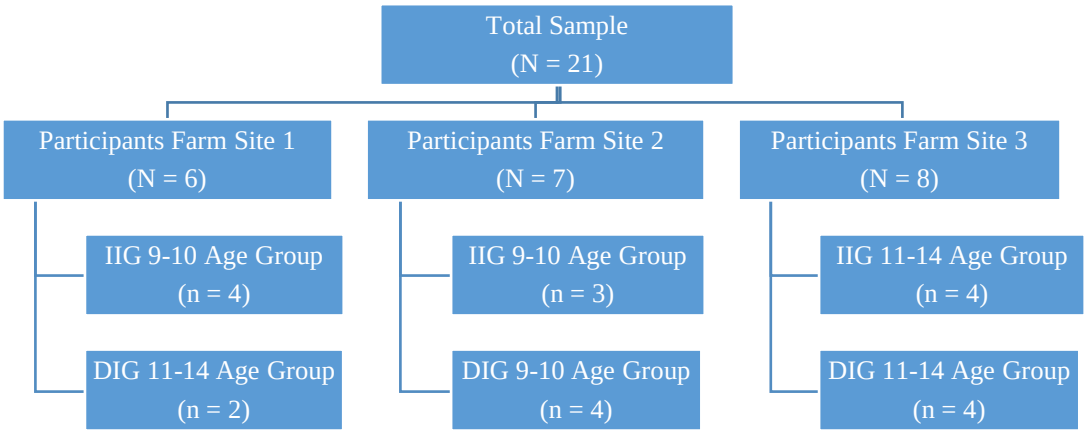

Figure 8. Visual representation of the statistical sample division (N = 21).

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6.6 Research procedure

For the purpose of clarity, a restatement of the study framework is given: the current study was conducted in two phases: *Phase 1*, the contextual adaptation of an existing CBT-based prevention intervention and *Phase 2*, the programme evaluation of the contextually adapted intervention programme. Before *Phase 1* and *Phase 2* of the current study were implemented, permission and ethics clearance were obtained (for practical purposes this procedure is presented under Section 6.6.1 below). Then *Phase 1* was implemented of which methods and outcomes may be viewed in Chapters 4 and 5. *Phase 2* entailed the implementation of the BRAVE programme and the completion of outcomes evaluation measures (procedure presented under Section 6.6.2 below) and analysis of data – the statistical, quantitative evaluation of preliminary effectiveness outcomes and the qualitative evaluation of perceived benefit and effectiveness, feasibility and acceptability outcomes (procedure presented under Section 6.6.3 below). Kindly find a graphical representation of the research procedure in Figure 9 below.

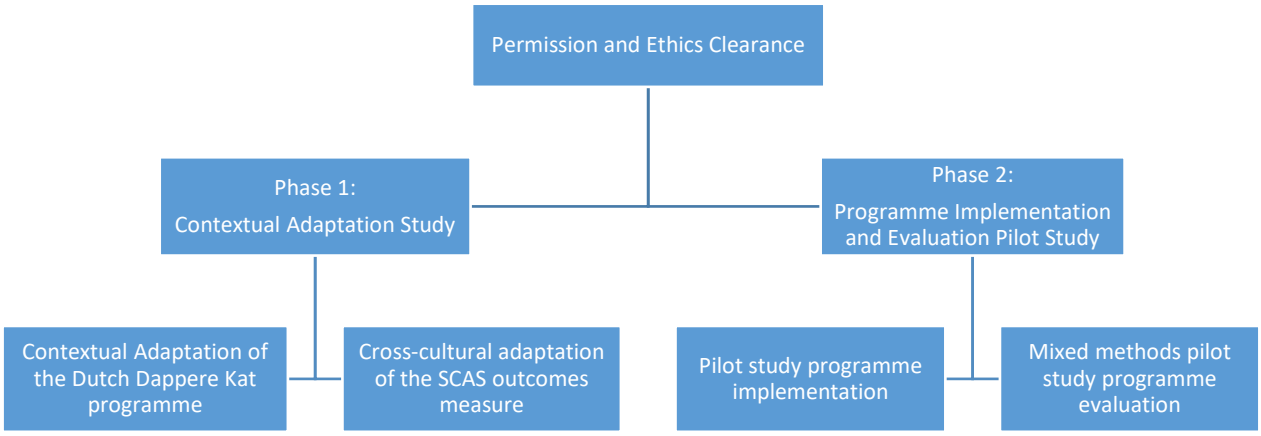

Figure 9. Graphical representation of the research procedure.

6.6.1 Permission and ethics clearance

Firstly, the researcher contacted the collaborating NGO director to discuss the possibility of conducting the current study within the communities that they serviced. The NGO director indicated during an initial meeting that the focus of the study was in line with the identified needs of children in their organisation and that the provision of psychoeducational support services was an area in need of development. During this meeting, the director of the NGO expressed great interest and gave preliminary verbal permission to conduct the current study.

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This was followed by a meeting with both the director and a clinical social worker who managed the psychosocial services of the collaborating NGO. During this meeting, the need for such a context-specific anxiety prevention programme was confirmed and a commitment was made to approve and support the proposed study. The researcher obtained written permission for the proposed study from the collaborating NGO (kindly refer to Appendix K) and a letter confirming the clinical social worker's supporting role should the study identify children in need of referral (kindly refer to Appendix L). Next, permission and ethics clearance were obtained from the Research Ethics Committee: Human Research (Humaniora: HS1186/2015) (kindly refer to Appendix M) of Stellenbosch University.

After obtaining permission and ethics clearance, the researcher met with NGO staff members - two social workers and representatives who worked with parents and children and provided them with information about the study (research protocol, expected duration and study requirements). Interest in, support for and commitment to the study and its intended outcomes were expressed. The social workers assisted in orientating the researcher to the NGO, the intended research sites and communities; the identification of farm sites for the implementation of the study; and the co-ordination of contact meetings with parents / guardians on the research sites. Parents / guardians were invited to information contact sessions during either lunch breaks and / or during parent evenings arranged by the NGO aftercare managers. During contact meetings, the researcher presented details regarding the study's purpose, procedure, aims and objectives as well as basic information pertaining to anxiety and CBT to aftercare teachers, aftercare managers and parents / guardians, after which questions were answered. Following the presentation, the researcher and a research assistant individually or in small groups handed out consent forms only available in Afrikaans (Kindly refer to Appendix N) and read or explained the written information provided on forms, depending on the needs of parents / guardians and their levels of literacy. All questions that parents / guardians raised in response to the consent forms were answered by the researcher and parents were given an opportunity to take the forms home before consenting. Most parents / guardians opted to give consent immediately. The researcher was assisted by aftercare teachers in the return of signed consent forms if parents / guardians agreed to participation at a later stage.

Children for whom parental / guardian consent was obtained, were approached for assent to participation (kindly refer to Appendix O for the assent form only available in Afrikaans). NGO social workers and aftercare teachers arranged contact sessions during which the researcher presented information about the study to small groups of children and

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answered any questions. Children who indicated that they wanted to participate in the study were given assent forms after which the forms were read and explained to them individually by the researcher and / or research assistant. Thus, both parent / guardian consent and child assent were required for inclusion. The procedure for obtaining informed consent and assent were followed in exactly the same way before *Phase 1* and *Phase 2* of the current study.

6.6.2 Implementation of the programme and completion of programme evaluation measures

A total of 21 children (IIG, N = 11 and DIG, N = 10) participated in the current study in which 8 sessions of the BRAVE programme was delivered. Sessions were delivered in a colloquial version of the participants' home language, Afrikaans, on each of the three farms sites that were identified by the collaborating NGO for the study purposes. Each session was between 40 and 45 minutes in length and were presented daily (Monday to Thursday) over a period of two weeks. The researcher and programme facilitator presented 12 sessions per week – 3 sessions per day for four consecutive days. As there was an average travel time of about 25 to 45 minutes between farms, depending on traffic, sessions were implemented as follows: Sessions on Farm Site 1: 09:00-10:00, Sessions on Farm Site 2: 11:00-12:00 and sessions on Farm Site 3: 13:00-14:00 in the IIG and sessions on Farm Site 1: 13:00-14:00, sessions on Farm Site 2: 14:45-15:30 and sessions on Farm Site 3: 16:00-17:00. Group composition was limited to 4 participants per group, and there were a total of 6 groups (3 in the IIG and 3 in the DIG). One group consisted of 2 participants (DIG), one group consisted of 3 participants (IIG), and four groups consisted of 4 participants (2 IIG and 2 DIG groups). Smaller than expected groups were due to attrition of 2 participants and limited numbers of children on the farm sites. Participants in the IIG participated in the BRAVE programme implementation 4 months before the children in the DIG. During the IIG implementation, participants in the DIG were included in non-CBT workshops that included activities such as drawing, playing games and singing in order to control for the Hawthorne Effect (Fernald, Coombs, DeAlleaume, West, & Parnes, 2012).

All participants (N = 21) completed anxiety outcomes measures on four occasions for the preliminary effectiveness programme evaluation. Table 11 on page 122 provides an outline of the timeline of the four different occasions for anxiety measures completion of both the IIG and DIG. Additionally, participants completed session-wise qualitative programme evaluation forms for each of the 8 sessions (kindly refer to Appendix P). All written materials were individually read to participants by trained data collectors and children were given the

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option of writing responses independently or having data collectors write down their verbal responses. As part of the programme delivery evaluation, two trained observers completed session-wise observational forms for each of the 8 sessions per farm site during both the IIG and DIG (kindly refer to Appendix C). Participants took part in focus group sessions 3 months post-intervention (kindly refer to Appendix Q).

6.6.2.1 Programme delivery facilitators

The 8 sessions of the BRAVE programme were delivered by a facilitator with the researcher present in the capacity of co-facilitator. The delivery of the programme by a facilitator enabled the researcher to: (i) observe session delivery of the adapted programme, (ii) monitor the quality and guide the integrity of the intervention protocol implementation, and (iii) identify potential areas in training, content and delivery processes to be adapted further. Furthermore, programme delivery by means of a trained facilitator instead of the programme developer enhanced the methodological integrity of the research process. Both the facilitator and co-facilitator roles were outlined in the scripted facilitator's manual with the role of the facilitator clearly defined as group leader and the co-facilitator as supportive and practical, for example assisting with the handing out of workbooks, role play and discipline in the group etc.

In line with the suggestion by Stallard et al. (2014) that effectiveness is enhanced when programmes are delivered by trained professionals, both the facilitator and co-facilitator had undergone 21 hours of training in the delivery of the DUTCH programme from the Radboud University research team (kindly refer to Appendix R).

The facilitator was considered a good choice for the delivery of the BRAVE programme as she had an honours-level qualification in psychology and was also a registered counsellor with no prior experience in delivering CBT-based programmes (or any other programmes) to either individual or groups of children. Subsequent to the contextual adaptation in *Phase 1* of the current study, the potential of programme delivery by non-clinically trained facilitators (to respond to the shortage and cost associated with highly trained clinical therapists in South Africa) was explored in *Phase 2*. As suggested by Stallard (2010) that the delivery of CBT-based interventions requires knowledge and understanding of the CBT model, how sessions relate to this model and an ability to match programme content and delivery to child participants, the researcher offered 70 hours of training and supervision in this regard, focusing on the CBT model, programme content and delivery processes, as well as cultural sensitivity and child-friendliness.

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The researcher (programme developer and co-facilitator) held a Masters' degree in Psychology and no clinical training. However, she was knowledgeable of CBT, had 12 years of experience in teaching both the subjects of English and Life Orientation, and in supporting children and adolescents aged 12 to 19 in her additional role of student support manager for 5 years. This experience and the continuous professional training obtained in her years of teaching (both educational and counselling) equipped the researcher with practical experience in child-friendly educational processes and group management. The researcher was also under the close supervision of the supervisor of the current study who is a counselling psychologist who has specialised in child psychology, childhood fear and anxiety and has expert knowledge and experience in conducting research in similar priority populations and in CBT prevention interventions.

6.6.2.2 Programme implementation observers and data collectors

The facilitator of the delivery of the BRAVE programme also functioned as a research assistant during both *Phase 1* and *Phase 2* of the current study and assisted in the logistical implementation and supervision of data collection during the participant completion of outcomes measures.

Two independent programme implementation observers were appointed for the evaluation of programme content and delivery process factors for the IIG (which entailed the observation of 24 sessions over a two-week period) and two other independent observers were appointed for the evaluation of programme content and delivery process factors for the DIG (which entailed the observation of 24 sessions over a two-week period). Due to the fact that all observers were post-graduate students with demanding academic schedules, it was the most feasible approach to appoint four individuals and divide the task into separate pairs for the observation of the IIG and the DIG. All observers were honour's level psychology students who had completed modules in developmental psychology and CBT in their training. During the IIG, observers also assisted in the administration of the session-wise participant programme evaluation forms for 24 sessions (kindly refer to Appendix P), but due to unexpected logistical difficulties during delivery of the DIG, an [8]independent data

[8] An interesting positive and unexpected outcome from this logistical change in data collection was the increased depth and breadth of information obtained from participants in the DIG who (as the data collector stated) considered their sessions with her as a sort of confessional where they could reveal everything as she had not participated in sessions as an observer. The researcher noted the importance of considering the impact of, even a small change such as who gathered the data, on the quality and depth of information obtained from children.

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collector was appointed to assist in this administration for the DIG. The data collector was a Masters' degree psychology student who had also completed modules in developmental psychology and CBT during her training.

The four independent programme implementation observers and two additional data collectors (also honour's level psychology students who had completed modules in developmental psychology and CBT) were appointed to administer the anxiety outcomes measures at pre-, post- and follow-up with the researcher and / or research assistant present during testing. Both observers and data collectors received training related to cross-cultural sensitivity, linguistic considerations, the consistent application of individually assisted administration of the SCAS (Spence Children's Anxiety Scale) self-report outcomes measures, and child-friendly approaches to data collection methods and procedures. Observers also received training in inter-rater reliability and community-based observational data collection. All observers and data collectors, as well as the research assistant signed confidentiality contracts. Kindly view a visual presentation of the human resourced utilised in the implementation and evaluation of the programme in Figure 10 below.

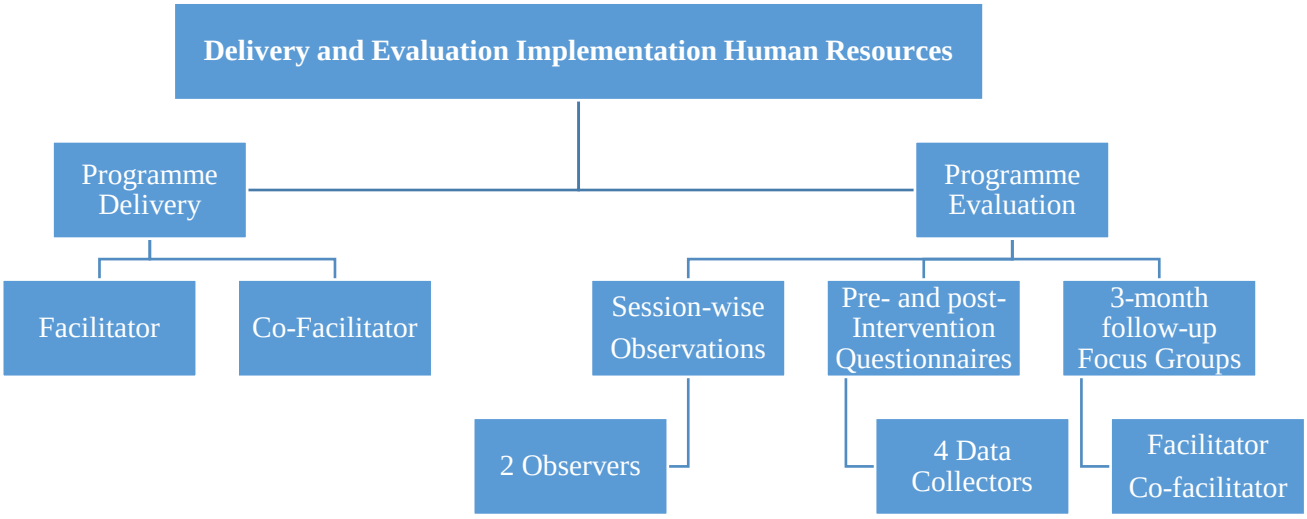

Figure 10. Graphical presentation of human resources utilised for programme implementation and evaluation.

6.6.3 Programme evaluation

Consultation with NGO representatives confirmed the variable level of literacy in the priority population. For this reason, and to ensure child-friendliness in data collection methods that can already be a daunting and intimidating process, the researcher ensured that trained data

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collectors assisted children with the completion of session-wise programme evaluation forms and with the completion of anxiety outcomes measures on the four occasions described in Section 6.6.2. Parents / guardians were afforded the same facilitation of their completion of anxiety outcomes measures. To ensure consistency and reliability, data collectors were trained in standardised procedures in the reading of questions and writing of answers / completing of questionnaires. Data collectors were trained to read and write only and to apply methods that would be consistent and not bias the data in any way, for example standardised responses were scripted should children / parents / guardians ask for explanations.

6.6.3.1 Programme evaluation measures

All participants (N = 21) completed a demographic questionnaire (kindly refer to Appendix S). This questionnaire was administered on receipt of written assent. For the quantitative programme evaluation, an anxiety outcomes evaluation measure was used. Participants completed the Spence Child Anxiety Scale - child version (SCAS-C) and their parents / guardians completed the parent version (SCAS-P) (Spence, 1998) that were both cross-culturally adapted (kindly refer to Chapters 4 and 5) The Afrikaans version of the SCAS-C and SCAS-P consisted of 38 items (and one non-scored item) each that covered six domains of anxiety symptoms, including generalized anxiety (6 items), panic (6 items) / agoraphobia (3 items), social phobia (6 items), separation anxiety (6 items), obsessive-compulsive disorder (6 items), and physical injury fears (5 items). Items were scored on a 4-point Likert scale with 0 = never, 1 = sometimes, 2 = often, and 3 = always indicating the frequency with which each symptom was experienced.

Two qualitative programme evaluation forms (based on Visagie, 2016): *Qualitative Form 1: Session-wise participant qualitative feedback form* and Appendix P, and *Qualitative Form 2: Session-wise programme implementation observation form* (Appendix C) were completed. A 3-month post-intervention follow-up focus group schedule (based on Visagie, 2016) was also used for the programme evaluation (Appendix Q). The qualitative forms and the 3-month post-intervention follow-up schedule provided participants with the opportunity to provide feedback on the acceptability and perceived benefit of the programme and observers to consider programme delivery integrity and acceptability.

The measures listed below were administered:

6.6.3.1.1 A *Demographic Questionnaire* (see Appendix S)

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6.6.3.1.2 The *Spence Children's Anxiety Scale* (SCAS-C) (Kindly find a copy in Appendix T)

6.6.3.1.3 The *Spence Children's Anxiety Scale* parent version (SCAS-P) (kindly find a copy in Appendix U)

The Spence Children's Anxiety Scale (SCAS-C) (Spence, 1998) was be used to measure levels of anxiety symptoms for two reasons. Firstly, to enable future comparisons of the pilot study findings with the results of the *DUTCH* programme, (Van Starrenburg et al., 2013) and secondly because it had been translated into Afrikaans and found to be useful as an anxiety measurement within a low socio-economic South African context (Mostert & Loxton, 2008). It demonstrated good internal consistency (Mostert & Loxton, 2008) in several translations (Orgilés et al., 2014; Tsocheva, Satoka, Georgiou & Essau, 2013) and previous usage with a South Africa sample produced an alpha value of .92 (Mostert & Loxton, 2008). Furthermore, it had acceptable test-retest reliability and stability in scores over a period of approximately 6 months (Spence, 1998; Spence et al., 2003).

Importantly, the CA and CCA that was implemented in Chapters 4 and 5 (*Phase 1* of the current study) identified areas of interpretive concern. A number of these concerns were addressed with the inclusion of context / culturally specific, colloquial wording or phrasing considered equivalent to formal Afrikaans translations. However, concern regarding the cultural relevance of items in the panic and obsessive-compulsive disorder subscales (and their influence on the statistical outcome of the current study) remained after CCA. These concerns are explored in the discussion of the statistical outcomes findings in Chapter 7. Despite concerns, the SCAS outcomes measure was utilised in the current study as a rigorous CCA process had been implemented. At the time of *Phase 2* of the current study, no alternative anxiety measures had been CCA for use in a South African context. Therefore, a change in outcomes measure would not have guaranteed a reduction in contextual-cultural dissonance within items and subscales.

6.6.3.1.4 Participant 3-month post-intervention focus group (see Appendix Q).

6.6.3.1.5 Qualitative Form 1: Session-wise participant qualitative feedback form (see Appendix P).

6.6.3.1.6 Qualitative Form 2: Session-wise programme implementation observation form (see Appendix C).

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6.6.3.2 Programme evaluation procedure

Programme evaluation comprised of both quantitative and qualitative data from participants (children), parents / guardians and observers.

For the quantitative evaluation of the BRAVE programme's preliminary effectiveness outcomes, all participating children (N = 21) and parents / guardians (N = 21) were administered an outcomes measure (see SCAS-C and SCAS-P) pre- and post-intervention, totalling 4 measurement sessions each. The following procedure was used in the quantitative evaluation:

- Randomisation assenting children into the IIG and the DIG.
- Assessment of the anxiety symptoms of participating children (*Measure 1*).
- The IIG received the intervention. DIG received non-CBT workshops.
- Re-assessment of the anxiety symptoms of all participating children.
  IIG: post-intervention and DIG: pre-intervention (*Measure 2*).
- The DIG received the intervention.
- Re-assessment of the anxiety symptoms all participating children:
  IIG: 3-month post-intervention follow-up and DIG: post-intervention (*Measure 3*).
- Final assessment of the anxiety symptoms of all participating children:
  IIG: 6-month post-intervention and DIG: 3-month post-intervention follow-up (*Measure 4*).

This procedure facilitated the measurement of:

- The comparative effectiveness of the intervention immediately after completion of the intervention (*Measure 2* for IIG and *Measure 3* for DIG).
- The maintenance of the effect of the intervention over time (via 3-month and 6-month follow-up measurements: *Measures 3* and *4* for IIG and *Measure 4* for DIG).

The following within-group hypotheses were tested in the quantitative outcomes evaluation:

- The IIG would demonstrate a significant reduction in anxiety symptom scores over time (as measured by the Afrikaans SCAS measure) from Time 1 to Time 2.
- The DIG would demonstrate a significant reduction in anxiety symptom scores over time (as measured by the Afrikaans SCAS measure) from Time 2 to 3.
- The reduction in anxiety symptom scores demonstrated post-intervention in the IIG and DIG would be maintained at Time 3 (3-months post-intervention for the IIG and

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post-intervention for the DIG) and Time 4 (6-months post-intervention for the IIG and 3- months post-intervention for the DIG).

The following between-group hypotheses were tested in the quantitative outcomes evaluation:

- No significant differences in anxiety symptom scores will be present between the IIG and DIG (as measured by the Afrikaans SCAS measure) at Time 1.
- The DIG anxiety symptom scores would be significantly lower than the IIG at Time 2 (as measured by the Afrikaans SCAS measure).
- No significant differences in anxiety symptoms scores will be present between the IIG and DIG at Time 3 and Time 4 (as measured on the SCAS measure).

The IIG and DIG (N = 21) anxiety symptom scores were measured on four occasions within a period of 9 months by means of the SCAS-C and SCAS-P outcomes measures. Table 11 below summarises the four assessment measures for the IIG and DIG.

Table 11

Assessment occasions in Phase 2 of the current study.

Time	**Date**	**Immediate Intervention Group**	**Date**	**Delayed Intervention Group**
Time 1	June 2016	Pre-intervention assessment	July 2016	Baseline assessment
Time 2	July 2016	Post-intervention assessment	October 2016	Pre-intervention assessment
Time 3	October 2016	3-month follow-up assessment	November 2016	Post-intervention assessment
Time 4	January 2017	6-month follow-up assessment	February 2017	3-month follow-up assessment

For the qualitative evaluation of the feasibility and acceptability of the contextually adapted BRAVE programme, all participants (N = 21) completed 8 session-wise, short, open-ended questions on their experiences of the programme. Additionally, 20 children

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participated in 3-month post-intervention focus group sessions in which their experiences of the programme, and perceived reports of benefit and effectiveness were explored. Programme implementation observers completed session-wise observational questions on session content and delivery processes. Finally, the researcher kept research records of the implementation process.

The following framework was used in the qualitative programme evaluation:

- Session-wise participant feedback on the acceptability of content and delivery.
- Session-wise observer feedback on feasibility and acceptability of content and delivery.
- Researcher notes on feasibility of the programme.
- 3-Month post-intervention participant focus group feedback on the perceived benefit, effectiveness and acceptability of the programme.

6.6.3.3 Data collection procedure

The biographical questionnaire was completed when children signed assent forms. The SCAS self-report outcomes measures were completed at the four testing occasions. The quantitative data collection procedure was implemented at the aftercare facilities of the participating NGO individually with all participants of the study (N = 21). Children were assisted by trained data collectors in the reading and completion of the SCAS-C self-report outcomes measures. As aftercare venues consisted of 3 small rooms that catered for a large number of children aged 6 to 19, there was little space for the completion of measures in private rooms. Therefore, data collection would often, due to this logistical challenge, be implemented on small aftercare chairs outside aftercare facilities – in gardens, under trees – or in data collector's cars or in farm-based community halls to allow for privacy and confidentiality. No other venues were available. Instructions were read aloud and included a statement assuring children of confidentiality and that there were no right or wrong answers. Items of the measure were read aloud, and children were given the choice to complete it independently or to have data collectors write down their answers. Self-report measures took about 10 to 15 minutes to complete. The same data collection procedures were implemented with parent / guardian completion of the SCAS-P.

The first testing occasion (T1) was implemented with all participants (N = 21) between one and two weeks before the delivery of the intervention to the IIG. The second

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testing occasion (T2) was implemented with the IIG (n = 11) a week after their implementation of the intervention, and with the DIG (n = 10) between one and two weeks before their delivery of the intervention. The third testing occasion (T3) was implemented 3 months post-intervention with the IIG (n = 11) and one week post-intervention with the DIG (n = 10) and the fourth testing occasion (T4) was implemented with the IIG (n = 11) 6 months post-intervention and with the DIG (n = 10) 3 months post-intervention.

The session-wise qualitative feedback forms were completed with the assistance of data collectors who read questions aloud and wrote down children's responses. Children were assured of confidentiality and that there were no right or wrong answers. These forms were completed after each session was delivered and took about 5 to 10 minutes per child. The 3-month post-intervention focus group sessions were facilitated by the researcher and research assistant (also the facilitators during programme delivery) who both noted participant responses, including individual responses to certain questions that required a record of individual data (as in specific questions about whether programme skills had been acquired) and collective discussion responses to broader, open-ended topics. Even though demand characteristics and the potential influence of using the facilitators of the programme delivery in 3-month post-intervention focus groups were a consideration, the researcher chose this approach for a number of reasons: 1) it offered an opportunity to observe participants' responses to facilitators after a period of time had lapsed, 2) it contributed to the ethics of the current study by continuing the facilitative relationships for a while after programme implementation – simply so that children would not feel forgotten or left behind after the research process was completed, 3) the researcher considered it more child-friendly as the participants had developed a trusting relationship with the facilitators based on the sharing of personal experiences and opinions, and would possibly be less threatened during 3-month post-intervention focus group sessions, 4) demand characteristics may generally be of concern when conducting research with children, even if unfamiliar data collectors were used, 5) the researcher had noted that the participants were more open to sharing honestly when they knew and trusted the person, and 6) the in-depth knowledge that the facilitators had of the intervention components and context could enhance the quality of 3-month post-intervention focus group facilitation.

In addition to the collection of participant data, four programme implementation observation data collectors noted content and process elements during the delivery of each of the 8 sessions. Two programme implementation observers were present in each of the 48

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sessions that were delivered, and a total of 96 programme implementation observation forms were completed independently.

6.6.4 Analysis of the programme evaluation data

Programme evaluation comprised not only a quantitative preliminary statistical effectiveness evaluation, but also a qualitative evaluation of the perceived benefit and effectiveness of the programme, i.e. the reduction of anxiety and the increase of CBT-based coping skills. Qualitative programme evaluation additionally comprised feasibility and acceptability of the intervention content and delivery processes. The quantitative statistical data analysis comprised responses to the biographical questionnaire and responses to the pre-, post, 3-month follow-up and 6-month follow-up SCAS-C and SCAS-P self-report outcomes measures of 21 assenting children and one of their parents / guardians each. The qualitative analysis comprised data obtained from session-wise responses to questions on participant feedback forms, 3-month post-intervention focus group sessions and session-wise responses to programme implementation observation feedback forms.

6.6.4.1 Quantitative statistical analysis

For the purpose of data analysis, the data for all three IIG participants of Farm Sites 1, 2 and 3 were combined (n = 11), and all three DIG participants of Farm Sites 1, 2 and 3 were combined (n = 10). All SCAS outcomes measures were scored by the researcher and research assistant and entered into the Statistical Package for the Social Sciences (SPSS for Windows version 25.0) (IBM 2017) for analysis. Leading academics in the field were approached and consulted with regards to the statistical analyses and interpretations of the quantitative data of the current study.

SPSS was employed to analyse quantitative data obtained from the SCAS outcomes measures and a mixed between-groups, within-groups (repeated measures) analysis of variance (ANOVA) was done. The between-groups factor referred to the comparison between the IIG and DIG, whereas the within-groups effects pertained to children's anxiety levels on the four measurement occasions. The data analysis enabled the researcher to test the following between-groups hypotheses:

- The IIG and the DIG would demonstrate no significant differences between anxiety scores obtained on the SCAS measures at T1.

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- The IIG and the DIG would demonstrate a significant difference between anxiety scores obtained on the SCAS measures at T2, with the IIG anxiety scores significantly lower.
- The IIG and DIG would demonstrate no significant differences between anxiety scores obtained on the SCAS measure at T3 and T4.

The data analysis enabled the researcher to test the following within-groups hypotheses:

- Anxiety reduction results obtained on the SCAS measure at T3 (3-month follow-up) would be maintained at T4 (6-month follow-up).
- The anxiety scores obtained on the SCAS measure will reduce significantly within the IIG from T1 to T2, T2 to T3, and from T3 to T4.
- The DIG would demonstrate a significant reduction in anxiety scores measured on the SCAS from T2 to T3 and from T3 to T4.

Findings from the quantitative statistical data analysis have been presented in Chapter 7.

6.6.4.2 Qualitative data analysis

The qualitative data from all 21 participants' session-wise responses, 20 of the participants' 3-month post-intervention focus group responses, and 4 programme implementation observers from both the IIG and DIG were used for qualitative programme evaluation. A data capturer typed the responses to all three qualitative data collection modes into a Word document. The researcher also kept daily records of sessions and typed them into Word documents. Three methods of data analysis were applied for the different programme evaluation outcomes: inductive content analysis, deductive content analysis and thematic analysis. Content analysis can be applied to any type of qualitative text, may involve inductive reasoning, deductive reasoning, or a combination of both (Elo, et al., 2014), and may be applied both quantitatively and qualitatively (Bengtsson, 2016). Inductive reasoning is a process by which the researcher draws conclusions by matching data to existing theories. In this process, data is explored to find meaningful answers to the research question.

Deductive reasoning is a process by which the researcher looks for pre-determined data sets to test a theoretical hypothesis (Zhang & Wildemuth, 2017). Content analysis was useful in the analysis of multiple data sets in the current study that comprised different informants and different forms of qualitative texts, including outcomes evaluation measures (Qualitative Form 1: Session-wise participant qualitative feedback form), 3-month post-

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intervention focus group data, and observational data forms (Qualitative Form 2: Session-wise programme implementation observation form) as it allowed the researcher to focus analysis both inductively and deductively on answering the programme evaluation research question. The programme evaluation data in this study were analysed in response to preliminary consideration of the pilot study benefit and effectiveness, feasibility, and acceptability, all of which were based on particular theoretical or conceptual frameworks. Bengtsson (2016) suggests four stages in content analysis which were applied by the researcher:

- *Decontextualization*: a familiar and common step in qualitative data analysis, the researcher immersed herself in the raw data and repeatedly read through texts to develop a sense of the whole before deconstructing it into smaller units of meaning, condensing meaning units and coding them. This step was taken either inductively or deductively. Inductive analysis entailed an open exploration of data in terms of the research question, for example considering participants' responses to questions about acceptability of the BRAVE programme and coding responses, followed by relating codes to existing frameworks of acceptability. Deductive analysis entailed exploration of data by actively searching for data related to pre-determined frameworks, for example that the preliminary benefit and effectiveness of a CBT-based prevention programme entails the acquisition and implementation of CBT-based content, and actively looking for text and coding data that respond to this framework. The researcher utilised coding lists based on the format suggested by Bengtsson (2016) (if inductive analysis was applied, the coding list was compiled whilst decontextualization took place and if deductive analysis was applied, the coding list was compiled before decontextualization took place).
- *Recontextualization*: the researcher returned to the data to evaluate whether all data related to the study aims had been covered and the original raw data was read in conjunction with the coding lists. This also entailed consideration of data that had been excluded from coding lists in order to establish which data should still be included (data relating to study aims) and which data could be excluded. Bengtsson (2016) underscores the importance of the researcher distancing themselves from the data at this stage in order to eliminate irrelevant information.
- *Categorisation*: This involved condensing extended data units where needed – as the data sets varied significantly in detail and depth, the researcher applied this step only when needed before creating categories of data. The current study addressed a number of

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programme evaluation aims, thus the researcher applied the suggestion by Bengtsson (2016) to divide data sets into domains that responded to these aims according to questions used in data analysis or to theoretical or conceptual frameworks. Categories and themes were then structured, reduced and completed when analysis had been saturated.

- *Compilation*: This followed the completion of categorisation, and involved analysis and writing of findings. The researcher implemented the analysis and writing processes iteratively, and the depth of analysis was determined by the respective breadth of texts from the various data collection methods. The researcher remained close to the participants' words and quantified some of the data.

Thematic analysis is a theoretically flexible method used to organise, describe and interpret qualitative data (Braun & Clarke, 2006), follows a very similar procedure to the one described for content analysis above and is considered similar to inductive content analysis. The researcher noted the similarity of the thematic analysis method suggested by Crowe, Inder & Porter (2015) to the content analysis method suggested by Bengtsson (2016). Firstly, immersion in data by reading and re-reading text, then initial codes are developed with the research questions and aims in mind whilst using additional data specifically related to the question to create context. Then themes are determined by clustering codes together meaningfully. After this process, themes are meaningfully named and quotes from the data that illustrate themes are captured. A defining difference between thematic and content analysis methods is the direction of analysis: thematic analysis starts with the data and is led to categories whereas content analysis starts with categories and searchers for data in terms of themes related to the categories. Crowe et al. (2015) suggest the writing and re-writing of analyses and findings, and the using of quotes from the findings as support for interpretation. Content analysis presents data closely to participants' responses, whereas thematic analysis allows for greater interpretation in the exploration of relationships between themes and the reformulation of data to address the research questions and aims. The researcher approached some data deductively with a clear framework for analysis and some data inductively by searching for categories of data and themes that respond to the research question. When data was rich and detailed enough and the research aims required a more exploratory and interpretive approach to programme evaluation, the researcher applied thematic analysis by considering relationships between thematic units as well as to deductive and inductive categories.

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6.6.4.2.1 Perceived benefit and effectiveness programme evaluation: inductive and deductive content analysis

Towards this study aim, 3-month post-intervention participant focus group data were analysed using deductive content analysis. This method was deemed appropriate as its utility lies in testing an existing theory (Elo & Kyngäs, 2008). It also allowed for the organisation of data according to theory-based CBT programme components and for the identification of patterns in subjective reports of perceived intervention gains and outcomes. By adopting a deductive content analysis approach, existing theory and research may be used as a starting point for the identification of key concepts or variables (Moretti et al., 2011). Importantly, in the process of deductive content analysis, a theory-based, operational definition of the perceived benefit and effectiveness of the BRAVE programme was created and is reported in Chapter 7. Data were analysed deductively by selecting text related to the identified theory-based codes, after which data were considered inductively to formulate themes and subcategories to contextualise responses related to the original codes. Additionally, some responses were quantified to present frequencies related to the acquisition and post-intervention application of core programme components.

6.6.4.2.2 Feasibility and acceptability programme evaluation: thematic, inductive and deductive content analysis

Feasibility data from programme implementation observer reports were considered deductively and the researcher applied a theoretically-informed framework for analysis. The intervention implementation fidelity framework suggested by Breitenstein et al. (2010) was applied to create categories related to the feasibility of delivering the BRAVE programme. Data were selected that responded to these categories. This was followed by an inductive exploration of all relevant data to create themes and sub-categories to contextualise responses.

Acceptability data from 3-month post-intervention focus groups, participant session-wise self-report feedback and programme implementation observers were analysed using inductive content analysis and thematic analysis. These methods were deemed appropriate for this segment of the programme evaluation as it allowed the researcher to explore the data whilst compiling a coding list of responses related to the acceptability of programme content and delivery processes. Additionally, the researcher could search for themes and apply interpretive methods to illuminate and integrate relationships between identified themes and categories from across all three different data sets.

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6.6.4.2.3 Trustworthiness of the qualitative data analysis

Graneheim, Lindgren and Lundman (2017) argue that dependability and consensus are closely related to trustworthiness in content analysis and suggest that co-researchers or peers may be included in the analysis process to verify findings. Merriam and Grenier (2019) suggest that trustworthiness of analysis and findings may be enhanced by peer review.

Content analysis is not solely an open coding approach, and both inductive and deductive analyses in the current study were framed within specific components of the research question and according to pre-determined frameworks. Accordingly, the researcher sought dependability and consensus in her analyses and interpretations of the data. She therefore addressed trustworthiness by approaching researchers in the field to verify analyses independently. Graneheim et al. (2017) suggest that, in verification, enough detail should be provided so that decisions may be understood and judgements of trustworthiness may be facilitated. Elo et al. (2014) suggest that the analysis process and categorization in content analysis should be considered and that any divergent opinions should be discussed with those familiar with the field and research topic.

For this purpose, the researcher firstly approached an academic with expertise in child anxiety problems, CBT-based anxiety intervention research and mixed methods research for consultation. Initial analyses of qualitative and quantitative data used in the mixed methods preliminary effectiveness evaluation (reported in Chapter 7) were presented for 3 consultations. Predetermined categories and original data sets were provided, which were considered and discussed with frequent references to the original texts until satisfactory consensus was reached. Secondly, the researcher approached the supervisor of the current study for multiple consultations on the qualitative analyses of extensive data sets used in the feasibility and acceptability evaluation (reported in Chapter 8). Again, categories and related emerging themes were considered against the original texts. During consultations, contrasting and divergent interpretations were considered and negotiated to satisfaction until consensus was reached. The researcher additionally approached an academic in the Department of Psychology of Stellenbosch University, with expertise in mixed methods designs and an interest in intervention research, for independent peer review. The academic was provided with the categories determined by the researchers' analysis frameworks and original data sets. During a consultation with the academic, analyses were considered and discussed until consensus was reached. Finally, the researcher approached a PhD student in the Department of Psychology of Stellenbosch University with extensive qualitative analysis experience. The

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PhD student was provided with the categories determined by the researchers' analysis frameworks and original data sets. After independent review, the researcher received a report in which suggested changes with regards to the use of alternative, more relevant supporting text for one theme and the inclusion of an additional theme to the analysis were suggested. These suggestions were discussed with the supervisor of the study and negotiated changes were implemented.

6.7 Ethics considerations

The aims of the current study were to contextually adapt the DUTCH anxiety prevention programme for vulnerable children in a semi-rural, disadvantaged South African context in *Phase 1* and to evaluate the preliminary effectiveness, feasibility and acceptability of the adapted programme in this context in *Phase 2*. Research with vulnerable groups of children should be implemented with care, sensitivity and with the best interests of all participants in mind, whilst importantly recognising the right of historically marginalised groups of children to be heard on matters that concern them (Daley, 2015). The ethics guidelines and principles proposed in the International Declaration of Helsinki (General Assembly of the World Medical Association, 2014) were observed during all phases of the research. According to Kirk (2007) important ethical issues pertaining to research with child participants include power relations, informed consent and confidentiality.

Power relations play an important role in vulnerable children's perceived ability to withdraw from participation, especially where an unequal power relation already present in society is emulated in research methods. Kirk (2007) makes a number of suggestions to address this: enhancing participatory research methods to build a sense of agency in children, responding to children's needs and continually checking for verbal and non-verbal clues that they want to withdraw, and using non-threatening group-based data collection methods. As the implementation of a child-friendly approach was central to this study, a number of strategies to respond to this important issue were used: children were reminded throughout the research process of their role as research partners and experts in assisting with adaptation and evaluation of the programme (although the degree to which younger children could really assimilate this role may be questioned), children were monitored for verbal and non-verbal signs of distress or potential preferences to withdraw, and such cases were managed individually and sensitively. Additionally, the researcher was in contact with the collaborating NGO social workers and aftercare managers with regards to the wellbeing of participants. Group-based data collection was implemented only once, data collection was

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designed to be less threatening with the following measures: reassurance of confidentiality and that there were no right or wrong answers, and the allocation of data collectors to each child who could assist in child-friendly data collection.

Although *informed consent and assent* to participation is imperative to ethical research, the degree to which true assent can be obtained is affected by developmental and chronological age of children, the degree to which assent is truly voluntary and whether the research process is truly understood (Kirk, 2007). In an effort to cater for this ethical difficulty in the best possible way, the researcher approached the issue of informed assent on multiple levels: firstly, children were initially approached for participation by NGO social workers and teachers who were (i) informed of the nature and aims of the study, and (ii) were trusted by children. Secondly, children were informed of the nature and aims of the study in three ways: (i) verbally in a group format, (ii) verbally in an individual format during which the researcher and research assistant offered explanations and answered questions, and (iii) individually by reading and explaining assent forms. Children were given the option to assent immediately or to take the assent form home before making a decision. Children were reassured that nothing negative would happen should they refuse participation, and that parental consent did not mean that they were expected to give their assent.

Confidentiality in research with children is also problematic, as children may disclose information indicating that they are at risk, which may require that the researcher report this information despite earlier assurances of confidentiality (Kirk, 2007). For this reason, the researcher included and emphasised a clause in the child assent form that stipulated that all information would be kept confidential unless a child was in immediate danger whereupon information would be relayed to the social workers of the collaborating NGO for referral and assistance. Children were assured that they would be informed of this process should the need to refer them arise. It must also be noted that the social workers were well-known, liked and trusted by children in the current study. Furthermore, the researcher's 10 years of experience in teaching children and 5 years' experience in providing lay counselling services to children, the communication between the researcher and the collaborating NGO social workers, and the fact that the study was also supervised by a registered counselling psychologist all facilitated an ethical response to potential distress and appropriate referral.

In conclusion, the following procedure was implemented to meet the ethics requirements for the current study. The researcher obtained written permission from Research Ethics Committee: Human Research (Humaniora: HS1186/2015) to conduct the study (kindly refer to Appendix M) of Stellenbosch University and the director of the collaborating NGO

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(kindly refer to Appendix K). A letter confirming the referral role of the managing social worker of the collaborating NGO for children that may disclose risk or present distress was obtained. Participants, their parents / guardians and relevant NGO staff were informed of the nature, aims and objectives of the study before its initiation. Written consent from the parents / guardians as well as assent from child participants were obtained. Only assenting children for whom a parent / guardian had given consent participated in the study. Participant information was kept private and confidential and was kept in a secure location with access by the researcher and supervisor of the current study only.

6.8 Practical implementation and programme outline of the *BRAVE* programme.

Phase 1 of the current study, the contextual adaptation of the DUTCH prevention programme was presented in Chapters 4 and 5. To clarify components of the BRAVE programme that were evaluated in *Phase 2*, the adapted programme is outlined here. The anxiety prevention intervention programme is based on cognitive-behavioural therapy principles as they are applied in the original *Coping Cat* treatment intervention programmes by Kendall (1994) and the DUTCH prevention programme by Van Starrenburg et al., (2013).

Consistent with the *Coping Cat* treatment programme (and its brief version of 8 sessions by Beidas, Mehta, Atkins, Solomon and Merz, 2013), the *Dappere Kat* prevention programme (Van Starrenburg et al., 2013), and the EMOTION anxiety and depression prevention programme (Martinsen, Kendall, Stark, & Neumer, 2016), the 8 session BRAVE prevention programme retained the presentation of psychoeducational sessions in the first half (Sessions 1-4) of the programme and exposure sessions in the second half (Sessions 5-8) of the programme.

Psychoeducation included adapted content and delivery processes to deliver the following skills: (i) the identification of (anxious) feelings and physiological symptoms of anxious feelings, and emotive control via relaxation training, (ii) the identification of unhelpful thoughts that maintain (anxious) feelings and learning how to challenge and change unhelpful thoughts into helpful thoughts via positive self-talk, (iii) identification of behaviours that maintain (anxious) feelings and to learn how to change behaviour by means of problem-solving, and (iv) the formulation of fear hierarchies along which perceived threats may be placed in increasing order.

Exposure included practising CBT-based skills session-based imaginal and graded in vivo exposures to reduce avoidant behaviour and to overcome anxiety. Additionally, psychoeducational and exposure components of the BRAVE programme were supported by

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homework assignments to enhance acquisition and application of coping skills and by a built-in programme-based reward system (rewards offered by facilitators and constructing outcomes of attempting exposure as internal rewards) to enhance participation and engagement.

A significant adaptation was that the BRAVE programme applied a context-specific I CAN choose plan (instead of the FEAR plan of the *Dappere Kat* and *Coping Cat* programmes) in which the CAN stood for: Calm down my feelings, Adapt my thoughts and make New plans. An Afrikaans acronym for BRAVE that translates into: *Think of positive plans and relax* was also included in the adapted programme. Adaptation resulted in context-specific content and delivery processes to fit with the new priority population and a programme model for a brief, intensive delivery format with four sessions per week over two weeks. This adaptation was believed to support dissemination of the programme in the new context because, as suggested by Beidas et al. (2013) in their arguments supporting brief versions of the *Coping Cat* treatment programme, the reduction in the length of treatment may reduce the cost, increase access and make dissemination more feasible in community settings, and may also reduce the required intensity (and cost) of training for non-clinical facilitators as there are fewer programme elements to deliver. Sessions of the BRAVE programme are described below.

Session 1 was designed to: (i) create group cohesion, trust and rapport by means of a feeling-themed ice breaker and a '*We understand each other*' group contract, (ii) introduce the main goals of the programme and basic concepts of CBT by means of what the programme referenced as the "*four WHAT questions*" (kindly refer to a visual presentation in Figure 11 on page 135 that was used in the programme that was adapted from Stallard, 2005) in response to various scenarios: 1. *What happened*?, 2. *What are my feelings* (in relation to what happened)*?*, 3. *What are my thoughts* (in relation to what happened)*?*, and 4. *What are my behaviours* (in relation to what happened)*?*, (iii) introduce children to the DAPPER acronym, and, (iv) acquaint children with a first step of the relaxation training in the form of a deep breathing and visualisation exercise to end the session. The delivery of the session was facilitated by the inclusion of a narrative of a context-specific and relatable character, named *Dapper* (Brave) *Donovan*. Kindly note a visual presentation of the "WHAT" questions in Figure 11 on page 135.

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Figure 11. Visual presentation of the WHAT questions used in the BRAVE programme and adapted from Stallard (2005).

The "four WHAT questions' and relaxation were applied in daily homework assignments (STIC, Show-That-I-Can tasks translated into Afrikaans as WEK: Wys Ek Kan take) for the first four sessions with the addition of a coping skill in response to each of the WHAT questions in Sessions 2, 3 and 4, which are described after the outlines of the goals of session 2 to 8 below.

Session 2 was designed to (i) introduce children to the C (*Calm down my feelings*) of the *I CAN choose plan* in response to the WHAT question: *What am I feelings*?, (ii) teach children about the physiological nature of (anxious) feelings by means of role play and interactive activities, and (iii) train children to apply relaxation by means of deep breathing, visualisation and deep muscle relaxation to gain emotive control over somatic responses. Relaxation training ended the session. The delivery of the session was facilitated again by the inclusion of a narrative of a context-specific and relatable character, named *Dapper* (Brave) *Donovan*. Homework tasks were designed to repeat session skills and to encourage relaxation at home.

Session 3 was designed to (i) introduce children to the A (*Adapt my thoughts*) of the *I CAN choose plan* in response to the WHAT question: *What am I thinking*?, (ii) teach children to identify unhelpful thought processes that maintain (anxious) feelings, (iii) teach children cognitive restructuring skills to challenge and change unhelpful thought processes and

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replace them with positive and coping self-talk by means of interactive activities, and (iv) to continue training in relaxation as an end to the session. The delivery of the session was facilitated by the inclusion of a narrative of a context-specific and relatable character, named *Dapper* (Brave) *Danica*. Homework tasks were designed to repeat session skills and to encourage relaxation at home.

Session 4 was designed to (i) introduce children to N (*Adapt my behaviours*) of the *I CAN choose plan* in response to the WHAT question: *What am I doing*?, (ii) teach children to identify behaviours that are avoidant in nature (to unrealistic fears) and that maintain (anxious) feelings, (iii) teach children problem-solving and planning skills to reduce avoidant behaviour (in terms of unrealistic fears), and (iv) continue relaxation training as an end to the session. The delivery of the session was facilitated by the inclusion of a (scripted) facilitator disclosure of a personal fear scenario to build rapport, normalise fear and model the application of the *I CAN choose plan*. This was done in preparation of exposure in Sessions 5 to 8 as children were asked to assist the facilitator in overcoming her (anxious) feelings, unhelpful thoughts and (avoidant) behaviour. Homework tasks were designed to repeat session skills and to encourage relaxation at home.

Sessions 5 was designed to (i) introduce children to the fear hierarchy in the form of a fear ladder (based on Stallard, 2005) in preparation for exposure practise sessions and home-based exposure, (ii) illustrate an integrated application of the I CAN choose plan in response to scenarios experienced by the two context-specific character narratives of Dapper Donovan or Dapper Danica, (iii) model and normalise initial failure to fully change (anxious) feelings, unhelpful thoughts and avoidant behaviours by means of a (scripted) facilitator disclosure of her application of the *I CAN choose plan* over the weekend, (iv) help children set up personal exposure hierarchies that were feasible for self-exposure homework assignments, (vi) implement the first practice task in the form of a group imaginal exposure. Homework tasks were designed to include self-exposure to individual feared situations or objects on personal hierarchies, were fully planned with the assistance of the facilitators(s) and limited to low-level exposures with good to excellent likelihood of success. Daily relaxation was encouraged.

Sessions 6 to 8 were designed to (i) implement group in vivo exposure to a commonly shared fear (context-specific for this group: fear of speaking English), (ii) allow group participants to repeat and practise CBT-based skills acquired from the *I CAN choose plan*, (iii) reduce (anxious) feelings, change unhelpful thoughts and to reduce avoidant behaviour (in response to unrealistic fears), (iv) continue relaxation training. Homework tasks were

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designed to include self-exposure to individual feared situations or objects on personal hierarchies and were fully planned with the assistance of the facilitators(s) and limited to low-level exposures with good to excellent likelihood for success. Additionally, children within the group were encouraged to offer each other peer social support during homework exposure tasks. Daily relaxation was encouraged.

Children were given daily homework tasks, *WEK* tasks in Afrikaans (Wys Ek Kan / STIC: Show That I Can). WEK tasks included practising psychoeducational skills and relaxation daily after Sessions 1 to 4. The WEK task for Session 1 required children to write about or think about a happy memory or experience and to apply content taught in the session by answering the four WHAT questions: *What happened? What did I feel? What did I think? What did I do?* as well as to practise the deep breathing and visualisation exercise taught in the session. The WEK task for Session 2 required children to answer the same questions as in Session 1 on a feared situation, but with the addition of: *What can I do to change my feelings?* and to practise the full relaxation activity taught in this session that included deep breathing, visualisation and deep muscle relaxation. The WEK task for Session 3 required children to answer the same questions as in Session 2, but with the addition of: *What were my unhelpful thoughts? What helpful thoughts can I think instead?* and to practise the full relaxation activity repeated in this session. The WEK task for Session 4 required children to answer the same questions as in Sessions 2 and 3, but with the addition of: *What can I do differently?* and to practise the full relaxation activity repeated in this session. The WEK tasks for Sessions 5 to 7 required children to implement individual exposures at home that were planned with the facilitators during the sessions. The importance of completing these activities was explained and completion was rewarded during feedback regarding the homework task in the following session.

To ensure non-threatening delivery of the programme, children were never reprimanded for non-adherence and rather assisted in overcoming obstacles to completion. Additionally, children were given the choice to participate in all aspects of the programme verbally to address variable literacy levels. Rewards for session participation of all sessions and completion of all WEK tasks took the form of a *Sticker Bank* in which children could collect stickers and could then “buy” a number of rewards at the end of each session, depending on the number of stickers collected. The programme protocol instructed facilitators to be generous in rewarding.

The programme also had a reward system for attendance of psychoeducational sessions (Session 1 to 4) with the following thematic rewards: Session 1: participants

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received a pencil and pretty eraser to use in their workbooks, Session 2: participants received a spring toy to remind them of the relaxation activity, Session 3: participants received bubbles to remind them of the cognitive restructuring activity, and Session 4: participants received a "My Plans Book" to remind them of the problem-solving and planning activity. Rewards for attendance of exposure sessions (Session 5 to 8) were structured as benefits of exposure itself: the decrease of anxiety and increase in self-efficacy and rewarding by means of stickers to 'buy' rewards continued. The final session (Session 8) involved an outing to a local restaurant where children would order a meal in English (in this impoverished, semi-rural context this was something that many children rarely experienced) to reward and celebrate participation in the programme and to implement the final individual exposure activity. Table 12 in Appendix V offers a summary of the session outline of the BRAVE programme.

6.9 Chapter summary

This chapter provided an framework of the methods used to obtain and analyse the data of *Phase 2*, the pilot study implementation and programme evaluation of the current study. Firstly, the background and framework of the programme evaluation pilot study were presented. Secondly, the research design was described. Thirdly, a description of the sampling, participants and context were presented. Fourthly, the procedures were outlined, followed by a discussion of the ethics considerations of the current study. Finally, the adapted intervention protocol and examples of implemented content were provided to contextualise the findings of *Phase 2* of the current study. Chapter 7 presents findings of the mixed-methods preliminary effectiveness programme evaluation and Chapter 8 presents the findings of the qualitative feasibility and acceptability programme evaluation.

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CHAPTER 7: *PHASE 2* - PRELIMINARY EFFECTIVENESS EVALUATION FINDINGS AND DISCUSSION

This chapter presents a mixed-methods results section of the current pilot study. Firstly, this chapter provides a brief introduction which establishes and re-emphasises the researcher's decision to utilise a novel application of a mixed-methods approach to the evaluation of the effectiveness and benefit outcomes of the intervention. Secondly, a re-statement of the statistical sample and the study time-line is presented. Thirdly, a descriptive analysis of the broad trend in the data is presented followed by the main analyses in relation to the effectiveness hypothesis. Fourthly, findings related to age and gender analyses are presented to further explore and contextualise findings. Fifthly, this chapter supplements the statistical data analysis with a deductive-inductive analysis of qualitative reports of the perceived intervention outcomes. The chapter is concluded with a synthesis of the quantitative and qualitative findings and a discussion of the synthesised findings.

7.1 Background and framework for the mixed-methods preliminary effectiveness and programme outcomes evaluation

This chapter reports the preliminary effectiveness findings of *Phase 2* of the current pilot study. *Phase 2* considered the potential success of the CA CBT-based, the BRAVE prevention intervention programme in lowering elevated levels of anxiety symptoms in a group of Afrikaans-speaking vulnerable children from a historically and socio-economically disadvantaged farming community in South Africa. As stated in Section 1.4.6, the emphasis in pilot studies is regularly but mistakenly placed on statistical significance alone even though studies may not be suitably powered. Additionally, as pointed out by Stallard (2010) prevention is distinguished by a focus on skills-building and enhanced coping in addition to potential lowering of elevated anxiety symptoms. Therefore, when considering the goals of CBT-based anxiety prevention interventions for children, it is evident that the effectiveness and outcomes evaluation of such programmes should be twofold: (i) an evaluation of the reduction of elevated levels of anxiety symptoms, and (ii) an evaluation of (subjective) reports on perceived benefit and improvement by means of learnt skills and enhanced coping strategies.

As an alternative to the singular pilot study statistical evaluation of an intervention, it is argued that a subjective intervention outcomes evaluation may offer important participant feedback regarding the perceived effectiveness, benefit and usefulness of an intervention. As

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such, the current pilot study formulates the effectiveness and outcomes evaluation of the BRAVE prevention intervention as twofold: (1) an indication of statistical reduction of elevated levels of anxiety symptoms, and (2) an indication of subjective reports of the perceived utility of the programme, the acquisition and application of CBT-based skills, and the generalisation of programme outcomes. Therefore, this chapter presents preliminary findings that include both a statistical and qualitative evaluation of outcomes. The quantitative component entailed a quasi-experimental time-series design with an experimental group (named the *Immediate Intervention Group, IIG*) and a control group (named the *Delayed Intervention Group, DIG*) as between-group factor, and repeated measurements of the outcome variables (i.e. anxiety symptoms) as the within-group factor (Bless, Higson-Smith, & Sithole, 2013). The qualitative component included a participant-based subjective evaluation of the perceived utility of the programme three months post-intervention.

7.2 The mixed-methods study statistical sample, non-statistical sample and time-line

As stated in Chapter 6 (see Section 6.4), 21 children and a parent / guardian participated in the quantitative component of the programme evaluation study. No questionnaire data was missing and all data sets were 100% complete; therefore, the statistical sample consisted of all 21 participants (11 boys and 10 girls; mean age 10.76 years, SD 1.7; range 9-14 years). 11 children were in the IIG (4 boys and 7 girls) and 10 children were allocated to the DIG (7 boys and 3 girls) and their parents. The demographic characteristics of the statistical and non-statistical samples are depicted in Table 10 on page 111.

Twenty children participated in the qualitative component of the programme evaluation study. The data of one participant of the DIG was unavailable as the child had entered boarding school at the time of the 3-month post-intervention focus group data collection session which was conducted 3-months post-intervention for both the IIG and the DIG. The qualitative sample consisted of 20 participants (10 boys and 10 girls; mean age 10.6 years, SD 1.57; range 9-14 years). 11 children from the IIG (4 boys and 7 girls) and 9 children from the DIG (6 boys and 3 girls) participated. As this impacted only the qualitative component of the study, no measures were required to safe-guard the reliability of the statistical analysis. The timeline of the four quantitative assessment times during which data was gathered from the 21 participants is provided in Table 13 on page 141 below for the purpose of clarity.

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Table 13

Assessment Times of Phase 2 of the Current Study

Time		Immediate Intervention Group	Delayed Intervention Group
Time 1	(T1)	Pre-intervention assessment	Baseline assessment
Time 2	(T2)	Post-intervention assessment	Pre-intervention assessment
Time 3	(T3)	3-month follow-up assessment	Post-intervention assessment
Time 4	(T4)	6-month follow-up assessment	3-month follow-up assessment

Several repeated measures analyses of variance (repeated measures ANOVAs) were performed on the full statistical sample (N = 21) and on the IIG and DIG separately. This was done to enable a comparison of the anxiety scores reported by participants between the IIG and DIG groups and within each group. As the study employed a time-series design, four measurement occasions were formulated as follows: T1: the pre-intervention for the IIG and baseline for the DIG; T2: the post-intervention for the IIG and the pre-intervention for the DIG; T3: the 3-month follow-up for the IIG and the post-intervention for the DIG; and T4: the 6-month follow-up for the IIG and 3-month follow-up for the DIG. The anxiety scores of the IIG and DIG were compared at each of the four-time points by means of a one-way analysis of variance (ANOVA). The between-group and within-group outcomes are reported in Section 7.3 and 7.4.

The qualitative evaluation sessions were conducted 3-months post-intervention for both the IIG and the DIG. A deductive-inductive content analysis was conducted to elucidate reports related to the benefit and effectiveness of the prevention intervention.

7.3 Descriptive data analyses of scores on the Afrikaans version of the Spence Child Anxiety Scales (SCAS)

As stated in Chapter 6 (see Section 6.6.3.1), the Spence Child Anxiety Scale (SCAS: Spence, 1998) child version, SCAS-C and parent version, SCAS-P that were CCA for Afrikaans-speaking Western Cape farmworker children (kindly refer to Chapters 4 and 5) were used to measure child anxiety symptoms in the current study. The Afrikaans version of the SCAS consisted of 38 items that covered six domains of anxiety symptoms, including generalized anxiety (6 items), panic (6 items)/agoraphobia (3 items), social phobia (6 items), separation anxiety (6 items), obsessive-compulsive disorder (6 items), and physical injury fears (5

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items). Items were scored on a 4-point Likert scale with 0 = never, 1 = sometimes, 2 = often, and 3 = always that indicated the frequency with which each symptom was experienced. experienced.

Table 14 below summarises the four assessment outcomes on the SCAS-C for both groups and outlines the means and standard deviations for the IIG (*n = 11*) and the DIG (*n = 10*). Table 15 on page 146 summarises the four assessment outcomes on the SCAS-P for both groups and outlines the means and standard deviations for the parental IIG (*n = 11*) and the parental DIG (*n = 10*).

Table 14

Mean Scores and Standard Deviations (SD) for the Total Score on the SCAS-C for the IIG (N = 11) and the DIG (N = 10) from T1 to T4

	Immediate Intervention Group (N = 11)		**Delayed Intervention Group (N = 10)**	
Testing	Mean	SD	Mean	SD
Time 1	47.00	13.02	41.70	14.79
Time 2	45.91	11.15	49.10	20.32
Time 3	38.91	14.27	39.60	21.85
Time 4	36.00	09.63	36.60	23.25

Note: SCAS-C = Spence Children's Anxiety Scale: Child version; IIG = Immediate Intervention Group; DIG = Delayed Intervention Group.

Table 14 outlines the mean scores and standard deviations obtained by the IIG (*n = 11*) and the DIG (*n = 10*) on the SCAS-C over time separately. Both groups obtained high scores on the SCAS-C at Time 1 (pre-intervention for both groups). The trend of the anxiety scores over time on the SCAS-C indicated that the IIG demonstrated a slight reduction at Time 2 (immediately after the intervention). This downward trend in the IIG scores increased notably at Time 3 (3 months post-intervention) and Time 4 (6 months post-intervention), indicating a potential delayed improvement response to the BRAVE intervention. The trend of the anxiety scores over time on the SCAS-C indicated that the DIG demonstrated an increase without intervention from Time 1 to Time 2. Then, there was a notable reduction in scores at Time 3 (immediately after the intervention) and Time 4 (3 months post-intervention).

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The reduction of scores as seen in Table 14 above reveal similar trends in the reduction of mean anxiety scores on the SCAS-C for the IIG (pre-intervention T1: 47 to 6-months post-intervention T4: 36) and the DIG (pre-intervention T2: 49.10 to 3-months post-intervention T4: 36.6). The researcher considered these trends promising and conducted statistical analyses to explore further.

7.4 Main quantitative findings of the preliminary effectiveness pilot study

The researcher conducted the main analysis in accordance with the stated hypotheses that there would be significant within-groups and between-groups differences. The within-groups effect was investigated by means of a repeated measures analysis of variance (repeated measures ANOVA) and the between-groups effect (difference) was investigated by means off one-way analyses of variance (ANOVA).

7.4.1 Within-groups effects: child data

The following within-group hypotheses were tested in this quantitative evaluation phase of the current study:

- Anxiety reduction results obtained on the SCAS measure at T3 (3-month follow-up) would be maintained at T4 (6-month follow-up).
- The anxiety scores obtained on the SCAS measure will reduce significantly within the IIG from T1 to T2, T2 to T3, and from T3 to T4.
- The DIG would demonstrate a significant reduction in anxiety scores measured on the SCAS from T2 to T3 and from T3 to T4.

Combined IIG and DIG within-groups findings

The researcher considered the IIG and DIG collectively as a single group to test the overall significance level of the reduction in anxiety scores on the SCAS-C from pre-intervention to post-intervention (T1 to T4) by means of a repeated measures ANOVA. Testing yielded a significant result for time with a large effect, $F(3,17) = 5.667$, $p = 0.007$, $\eta p2 = 0.500$. Thus, there was a significant effect for time in the anxiety scores measured on the SCAS-C.

Pairwise comparisons revealed that there was no statistically significant decline in scores from Time 1 to Time 2, $p = 1.00$, between Time 1 and Time 3, $p = 0.349$ or Time 2 to 3, $p = 0.144$. However, a statistically significant difference in scores between Time 1 (pre-intervention) and Time 4, $p = 0.045$, and between Time 2 and Time 4, $p = 0.013$ were

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indicated. These results indicated that the overall decline in scores on the SCAS-C did not become statistically significant until 3 to 6 months post-intervention. The researcher considered the possibility that this finding was indicative of a delayed intervention response sometime found in children (as suggested by Barrett & Turner, 2004).

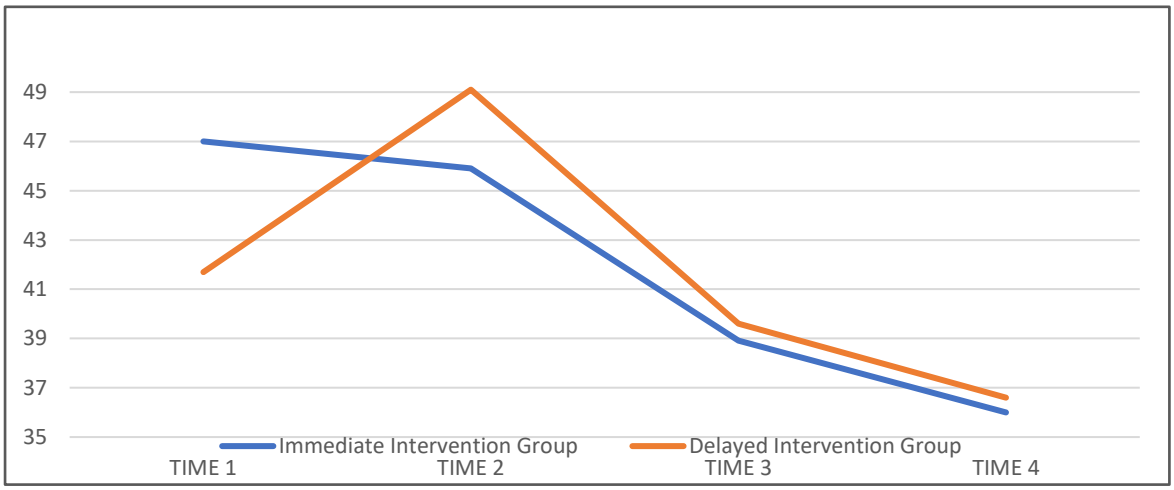

Figure 12. Mean scores on the Spence Children's Anxiety scale (SCAS-C) for the intervention group (IIG) and the control group (DIG) over time.

Note. IIG = Immediate Intervention Group; DIG = Delayed Intervention Group.

Separate IIG and DIG within-groups findings

A multivariate ANOVA was performed on the total scores of the SCAS for the IIG and the DIG separately. The multivariate main effects for time were significant for the IIG with $F(3, 8) = 4.809$, $p = 0.034$ but not for the DIG, with $F(3, 7) = 2.000$, $p = 0.203$. The significant decline in the mean scores of the IIG from T1 to T4 was not surprising, as Table 14 on page 142 indicated high pre-intervention scores at T1. The non-significant decline in the DIG from T2 to T4 was contradictory to expectation as Table 14 on page 142 indicated a similarly high pre-intervention score at T2.

Pairwise comparisons for the IIG indicated that even though scores declined from T1 to T2, the decline was non-significant ($p = 0.852$). Contrary to the prediction in the hypothesis, significant differences were found in scores from T1 to T3 ($p = 0.031$) and from T1 to T4 ($p = 0.013$) and from T2 to T4 ($p = 0.037$), indicating a delayed significant reduction and maintenance of reduced anxiety scores at 3 and 6 months post-intervention.

Pairwise comparisons for the DIG indicated a significant difference in scores from T2 to T3 ($p = 0.026$) as predicted in the hypothesis and from T2 to T4 ($p = 0.030$) indicating

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immediate significance in decline of scores post-intervention that is maintained at 3-months post-intervention. The researcher concludes that even though the overall decline in the DIG was not significant, pairwise comparisons offered encouraging supporting evidence for the potential significant decline of anxiety scores over time. This potential trend may also be considered in Figure 12 on page 144 that demonstrates visually the reduction of anxiety scores for the IIG and the DIG over time.

7.4.2 Between-groups effects: child data

The following between-group hypotheses were tested in this quantitative evaluation phase of the current study:

- The IIG and the DIG would demonstrate no significant differences between anxiety scores obtained on the SCAS measures at T1.
- The IIG and the DIG would demonstrate a significant difference between anxiety scores obtained on the SCAS measures at T2, with the IIG anxiety scores significantly lower.
- The IIG and DIG would demonstrate no significant differences between anxiety scores obtained on the SCAS measure at T3 and T4.

The above hypotheses were tested by means of ANOVAs. The results indicated that overall, between-group effects were non-significant indicating that there was no significant difference between the groups in terms of the intervention condition, $F(1) = 0.001$, $p = 0.95$. The between groups effects at Time 1, the pre-intervention for the IIG and baseline for the DIG, revealed no significant difference in the anxiety scores between the two groups with $F(16) = 0.872$, $p = 0.63$ as predicted in the hypotheses. Contrary to the expectation stated in the hypotheses, Time 2 (post-intervention for the IIG, and pre-intervention for the DIG), revealed that there was no significant difference in the anxiety scores between the two groups, $F(16) = 0.872$, $p = 0.63$. At time 3 (3-months post-intervention for the IIG and post-intervention for the DIG), there was as expected, no significant difference in the anxiety scores between the two groups, $F(17) = 1.67$, $p = 0.38$ following intervention. At time 4 (6-months post-intervention for the IIG and 3-months post-intervention for the DIG), there was as expected no significant difference in the anxiety scores between the two groups, $F(16) = 2.369$, $p = 0.21$ following intervention.

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7.4.3 Combined between-groups and within-groups effects: parental data

In Table 15 on below, the mean scores and standard deviations on the SCAS-P over time are displayed separately for the parental IIG (*n = 11*) and the parental DIG (*n = 10*). It may be seen that both groups presented higher anxiety scores at Time 1 (pre-intervention for both groups) than at Time 4. The trend indicated on the SCAS-P scores over time for both the IIG and the DIG follow the same pattern. At T2 (immediately after the intervention for the IIG and pre-intervention for the DIG) there is a slight reduction in the anxiety scores. This downward trend in both the IIG and DIG scores continues to T3 (3-months post-intervention for the IIG and post-intervention for the DIG). Interestingly, both groups demonstrate an increase in anxiety scores on the SCAS-P at T4 (6-months post-intervention for the IIG and 3 months post-intervention for the DIG), indicating a potential observation by parents of an increase in anxiety scores post-intervention. These trends in the data did not indicate any between-groups effect, and interestingly were lower than the anxiety scores reported by their children for both the IIG (for example: T1 SCAS-C: 47 and T1 SCAS-C: 37.18) and the DIG (for example: T1 SCAS-C: 41.7 and T1 SCAS-P: 31.3)

Table 15

Mean Scores and Standard Deviations (SD) for the Total Parental Score on the SCAS -P for the IIG (N = 11) and the DIG (N = 10) from T1 to T4

	Immediate Intervention Group (*N* = 11)		**Delayed Intervention Group (*N* = 10)**	
Testing	Mean	SD	Mean	SD
Time 1	37.18	14.19	31.30	16.04
Time 2	34.36	12.23	28.20	9.36
Time 3	27.55	13.65	18.50	10.14
Time 4	30.18	14.32	22.50	14.44

Note: SCAS-P = Spence Children's Anxiety Scale: Parent version; IIG = Immediate Intervention Group; DIG = Delayed Intervention Group.

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A repeated measures ANOVA on a combined IIG and DIG indicated no statistically significant difference between the IIG and DIG F(1) = 2.510, p = 0.130 as expected from the scores in Table 15, p. 146 and the visual presentation in Figure 12 on page 144. A significant effect size for time was found in the combined analyses, with F(1) = 5.293, p = 0.009. Pairwise comparisons of the combined parent reported child anxiety scores indicated that a significant reduction occurred from Time 1 to 3, p = 0.002, from T2 to T3, p = 0.011 and from T1 to T4, p = 0.024. The upward trend in the parent-reported child anxiety scores from T3 to T4 was not significant, p = 0.052. When the IIG and DIG were considered separately, the IIG evidenced no significant decrease over time with F(3) = 1.350, p = 0.325. The DIG, however evidenced a significant decrease over time with F(3) = 4.781, p = 0.041. Pairwise comparisons identified a significant reduction in anxiety scores in the DIG from T2 to T3, p = 0.030; T1 to T3, p = 0.011 as predicted in the hypotheses. These findings are in contradiction with those on the SCAS-C where the IIG demonstrated significance, but not the DIG.

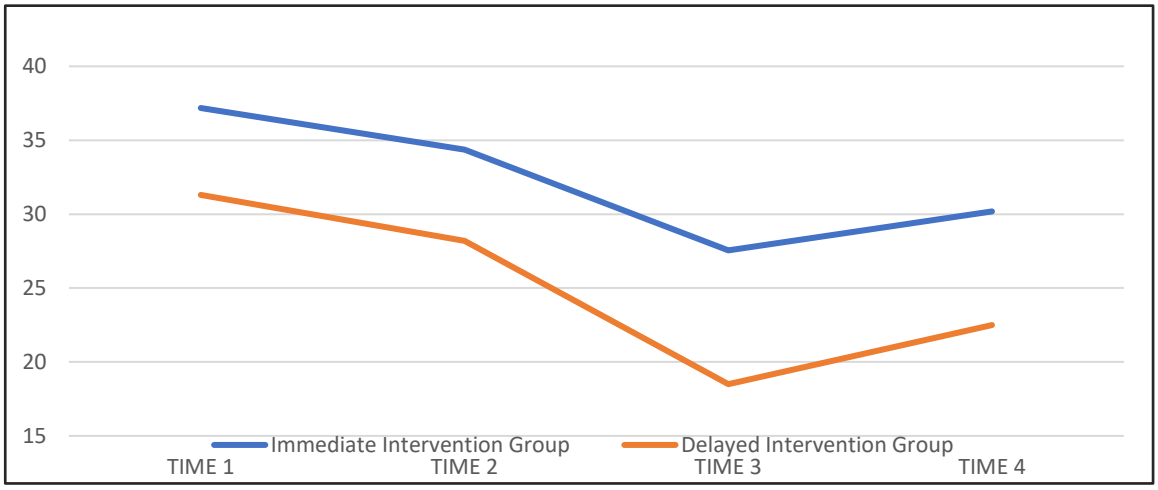

Figure 13. Parental mean scores on the Spence Children's Anxiety scale (SCAS-P) for the intervention group (IIG) and the control group (DIG) over time.

Note. IIG = Immediate Intervention Group; DIG =: Delayed Intervention Group.

7.4.4 Gender and age – child data

The researcher was interested in whether there were gender and age differences in the effect of the BRAVE programme and found no significant group-gender interactions with F(3) = 0.818, p = 0.182 which indicated a uniform response to the programme similar to findings in for example Essau, Conradt, Sasagawa, & Ollendick (2012a), and Visagie (2016). Analysis

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of age presented similar results with no significant group-age interactions with $F(17) = 0.766$, $p = 0.529$.

The researcher then explored whether there were differences between the younger 9- to 10-year age group and the older 11- to 14-year age group in their within-groups outcomes and conducted a repeated measures ANOVA for each age group separately. Both age groups indicated a trend towards an increase in anxiety scores from T1 to T2 and a decrease in anxiety scores from T2 to T4. However, the younger 9-10-year age group produced a non-significant outcome for time with $F(3) = 0.669$, $p = 0.228$ and the older 11-14-year age group produced a significant outcome with $F(3) = 5.572$, $p = 0.029$. Pairwise comparisons indicated a significant reduction in anxiety scores between T1 and T3, $p = 0.024$, T2 and T3, $p = 0.020$, T2 and T4, $p = 0.017$, T1 and T4, $p = 0.015$ for the older 11-14-year age group and no significant reductions at any time points in the younger age group.

7.5 Discussion of the quantitative findings of the preliminary effectiveness pilot study

This section presents a discussion of the quantitative results presented in Section 7.4 and their implications.

7.5.1 Discussion of the within-groups effects on the SCAS-C

Anxiety scores obtained on the SCAS-C anxiety outcomes measures yielded a significant result across all four time-points (T1-T4) for the IIG and DIG when combined. In other words, there was an overall significant within-groups effect for anxiety scores obtained on the SCAS-C across both intervention groups. Pairwise comparisons indicated that significance was only reached by T4 when the groups were combined, indicating a possible delayed response to the intervention, in line with findings by Mostert and Loxton (2008) in the South African context.

When the IIG and DIG were considered separately, only the IIG yielded a significant result for time on the SCAS-C. On closer pairwise inspection, the IIG and DIG each indicated both significant and non-significant results at the various assessment time points, although a shared trend was a decline in scores after participation in the intervention. The IIG, contrary to the study hypothesis, did not yield a significant reduction in anxiety scores from T1 to T2, but presented a delayed significant reduction at T3 and T4, in line with previous child prevention intervention research findings (Barret & Turner, 2004; Mostert & Loxton, 2008). The DIG, on the other hand, did support the hypothesis with a significant reduction in anxiety scores from T2 to T3 which was maintained from T3 to T4 with another significant reduction

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in anxiety scores from T2 to T4. What was problematic was the failure of the DIG to achieve a multivariate main effect for time.

The variation in patterns of significance in the decline of scores may be due to the small sample size that could have biased the results. However, in the context of this pilot study, the researcher cautiously states that a number of the hypotheses of the within-groups evaluation were supported by the findings. Thus, it can be concluded that according to the overall general trend of the data scores to reduce significantly over time, the BRAVE programme shows promise in lowering self-reported anxiety scores amongst children.

In an attempt to further understand the variable findings, the researcher considered the potential influence of gender and age, particularly as qualitative findings of the current study pointed to age-related differences in responses to the BRAVE programme. The exploration of gender presented no further answers, but age appeared to offer some clarity, although not in the way the researcher had anticipated. Analysis indicated that children in the older 11-14-year age group demonstrated a significant decline in anxiety scores over time, but that younger children in the 9-10-year age group did not at any of the time points. This finding did not account for the non-significant decline in anxiety scores of the DIG as this group consisted of more children in the older 11-14-year age group (kindly refer to Table 10 on page 111). The finding that children from the older 11-14-year age group responded well to the BRAVE programme in terms of significant declines in anxiety scores may be understood in the context of suggestions that CBT-based programmes must be developmentally appropriate for effectiveness to be possible (Kendall, 2003; Nelson & Tusaie, 2011; Cartwright-Hatton et al., 2011). Therefore, perhaps the BRAVE programme requires further simplification for younger children or children in this context-specific South African community may benefit from later participation.

7.5.2 Discussion of the between-group effects on the SCAS-C

The results at Time 1 (pre-intervention for both the IIG and DIG) supported the hypothesis that there would be no significant differences in anxiety scores between the IIG (n = 11) and DIG (n = 10) on the SCAS (see Table 14 on page 142). The IIG (M = 47.00, SD = 13.02) reported a higher mean anxiety score in comparison to the DIG (M = 41.70, SD = 14.79) at T1. However, these differences in anxiety scores were non-significant as expected, since neither as neither of the groups (IIG nor DIG) had yet participated in the BRAVE programme.

The results at Time 2 (post-intervention for the IIG and pre-intervention for the DIG)

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yielded a non-significant difference between the two groups. The scores on the SCAS-C measure did present lower anxiety scores for the IIG (M: 45.91, SD: 11.91) in comparison with the DIG (M: 49.10, SD: 20.32). Although these findings present a non-significant difference in anxiety scores on the SCAS, the trend of the data is in line with what was expected at T2. As expected, the IIG reported lower anxiety scores after participation in the BRAVE programme in comparison to the DIG before participation. Therefore, at T2 (post-intervention IIG; pre-intervention DIG) results suggest that the BRAVE programme did not have a statistically significant effect on the IIG.

Results at Time 3 (IIG 3-month post-intervention; DIG post-intervention) revealed slight, non-significant differences between the IIG (M: 38.91, SD: 14.27) and the DIG (M: 39.10, SD: 21.85) on the SCAS-C anxiety measures. These findings are in accordance with the stated hypothesis of the expectation that there would be no significant difference between the anxiety scores for the IIG and DIG at T3. However, this finding should be considered with caution as the expected significance in the difference of scores at T2 (post-intervention IIG: pre-intervention DIG) was not achieved.

Results at Time 4 (IIG 6 months post-intervention; DIG 3 months post-intervention) revealed that no significant differences between the IIG (M: 36.00; SD 09.63) and DIG (M: 36.60; SD 23.25) with mean scores of the two groups within a very close range. These findings support the hypothesis of what was expected at T4: that anxiety scores obtained on the SCAS would be maintained. However, since testing at T2 and T3 also yielded non-significant differences between the IIG and DIG, the findings at T4 do not imply that the BRAVE programme had been effective in lowering anxiety scores.

The inability of the data to present a statistical difference may be related either to a lack of intervention effect or a lack of power in a sample size of 21. Additionally, the identified interpretive and measurement problems of the SCAS measure in this South African context should be considered when making sense of the findings. The researcher cautions against conclusions that do not take this cross-cultural measurement complexity into account. Towards this end, the researcher reports here that analyses were conducted with the assistance of an academic consultant in which the two problematic OCD and panic subscales of the SCAS were removed (kindly refer to Sections 5.2 and 5.4). This removal made no significant impact on the findings and were thus not considered in the interpretation of the outcomes.

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7.5.3 Discussion of the within-groups and between-groups effects on the SCAS-P

The overall trend in the data obtained from parents on the SCAS-P indicated that: 1) there were no significant differences between the IIG and the DIG at any time points; 2) parents reported lower child anxiety scores than children (consistent with findings of this tendency by Rodgers & Dunsmuir, 2015); 3) parents indicated an non-significant increase in child anxiety scores at follow-up; and 4) parents differed in their reports on the significant decrease of child anxiety scores over time, with only the parental DIG providing any evidence of a significant decrease, which was at T3 (post-intervention). Again, these findings should be interpreted with caution in the context of interpretive and measurement concerns identified in *Phase 1* of the current study with the SCAS in this South African context.

7.6 Main qualitative data findings of the perceived outcomes pilot study

3-month post-intervention focus group data were analysed using deductive content analysis. This method was deemed appropriate as its utility lies in testing an existing theory (Elo & Kyngäs, 2008). The researcher applied a framework for subjective, perceived effectiveness evaluation based on CBT theoretical components which allowed for the identification of patterns in children's self-reports on intervention gains, treatment components and outcomes.

7.6.1 Perceived intervention outcomes evaluation

The subjective evaluation 3-month post-intervention focus group data illustrated that, three months after the intervention, children generally considered the BRAVE programme to be beneficial and helpful in the management of emotive, cognitive, and behavioural responses to threatening experiences or elevated levels of anxiety symptoms. Children's responses also indicated that the core components of the intervention had been ***generally acquired and retained, well-understood, and applied in daily life*** responses to anxiety-provoking and threatening experiences.

A number of children reported that they applied the core components of the intervention in situations that were not per se related to anxiety and threat. For example, some youngsters used the newly acquired skills to deal with difficulties in interpersonal relationships and for anger management. In addition, it was reported that certain programme components were disseminated to family members, indicating a generalisation of intervention-based competencies. The intervention programme was reportedly considered effective in reaching its intended outcomes, but a ***tendency for age-related variance in the acquisition, retention and application*** of core intervention components was revealed with

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younger children (aged 9-10-years) reporting fewer acquired, understood and applied CBT-based skills as compared to older children (aged 11-14 years) (kindly refer to Figures 13 and 14 on page 131).

Subjective reports of children's evaluation of the subjective outcomes of the BRAVE programme were organised according to the:

- **Perceived utility of the intervention**
- **Perceived utility of exposure**
- **Reported acquisition and application of core components in the management of anxiety**
- **The generalisation of core components at 3-months post-intervention.**

7.6.1.1 Perceived utility of the intervention

Children evaluated the BRAVE CBT intervention as beneficial and helpful for the following reasons, the intervention:

(1) ***Promoted resilience and improved coping skills*** as illustrated by "it helped … by thinking where you want to get to in life", "(we learnt) how to handle it when you are scared", "we learnt (in the programme) that you can get back up again" and "to try again (when you fail)". "You can be brave … you get up and fight. Being brave doesn't mean that you get into a fight, it means you can save someone's life," because "there is always a plan that can be made."

(2) ***Improved communication and interpersonal relationships or support systems***, illustrated by "I help my mother sort things out at home now … things are better at home now," because "I now think before I speak … if I speak (react) now, I consider what will come of it". "(The intervention) taught me how to talk (to people), before the programme, I was scared to do that," "you don't always have to keep things to yourself … you can share it with people you trust," and "I've learnt to have respect for my friends and to trust them."

(3) ***Reduction of anxiety and improvement of affect***: "We learnt how to overcome our fears," "it taught me not to be shy," "we learnt not to be afraid of dogs anymore" and "to

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calm down my feelings (when upset or scared)". A most striking quote from a group of 9-10-year-old children indicated the perceived benefit of the programme:

> P1: *You must do the programme with other children so that they can feel the way we feel. (How do you feel?) P2: We feel light now, not so heavy anymore. That big thought bubble makes you feel so heavy. P3: That thought bubble makes you feel dizzy, makes your head spin, makes you feel confused. (What is that thought bubble?) P2: Too many things that we think … it makes me feel so alone … I didn't want to play with other children. (Is that different now?) It's better now, I play with everyone.*

7.6.1.2 Perceived utility of the exposure

Children reported that the core component of exposure was beneficial and experienced positively. Exposure experiences were considered ***rewarding*** as illustrated by a number of children who described it as "enjoyable" and "nice". Intervention-based exposure tasks were interpreted as a *reward* itself as intended in the programme delivery: "We went (outside the farm to a restaurant). We went there because we worked so nicely … we behaved ourselves nicely … we had to speak English there" and "I was scared to go talk at the office but we did it because we spoke so nicely."

The utility of exposure was reported as related to the ***reduction of anxiety and avoidant behaviour***, for example: "It helped to think of things that scare you", "In the beginning we were shy, but later we weren't shy anymore. If you keep trying, it gets better", "I had to speak English to the neighbours … because I was shy … it was good … I learnt not to be shy to speak English in front of people anymore," and "I remember I had to go to the cat and stroke it. It scratched me. The (the facilitator) asked me about the fear meter***… I'm friends with that cat now***." One child had reported a fear of horses which was problematic as he lived close to the stables where horses were kept on the farm and needed to pass it often. During the programme, the child had to "draw a horse" and since then had reportedly visited the horses frequently, had requested horse riding lessons and extinguished his fear of horses. Another example was a child who was afraid of spiders, but via exposure had overcome his fear and had eventually "killed that spider".

Additionally, exposure was considered ***useful in developing coping skills***: "We went to (that restaurant) and enjoyed something to eat and we spoke English. (Why did you have to

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speak English? “To have more muscles … to be stronger.” Children also reported the *use of exposure post-intervention* with a striking example: “

> *I use the ladder game to not be scared anymore. At the bottom is scared, then more scared and most scared is at the top. Then I put things I am scared of on the ladder. If it is something that I am scared or more scared of, I will try it. I don’t do something that I am most scared of.*

7.6.1.3 Participant reported acquired and applied core intervention components

Children reportedly acquired knowledge regarding thoughts, feelings and behaviour, as well as intervention components related to emotive management, cognitive restructuring and behavioural modification skills. Furthermore, children considered intervention components useful in the management of threatening experiences or elevated levels of anxiety symptoms.

Of the 21 participants, 100% reported having learnt about feelings with statements such as “if you get a fright, you get feelings like your heart beats fast, your legs go lame, and your hands get shaky”, and 87% about cognitions, such as “you must not think negatively, you must always think positively” and 96% about behaviours. Children additionally reported perceived acquisition of competencies regarding emotive management (96%), cognitive restructuring (86%) and behaviour modification (74%). Notably 9.5% of participants did not believe that they had acquired cognitive restructuring skills and 4.5% were unsure. Similarly, beliefs regarding the acquisition of behaviour modification skills indicated 9.5% felt that they had not learnt these competencies and 16.5% were unsure. Notably, it was predominantly the younger group (aged 9-10 years) that indicated lower acquisition rates (see Figures 13 and 14 on page 131) and either that skills had not been acquired or that they were confused regarding the acquisition of intended cognitive restructuring or behavioural modification skills.

Kindly find visual presentations in Figures 14 and 15 on page 155.

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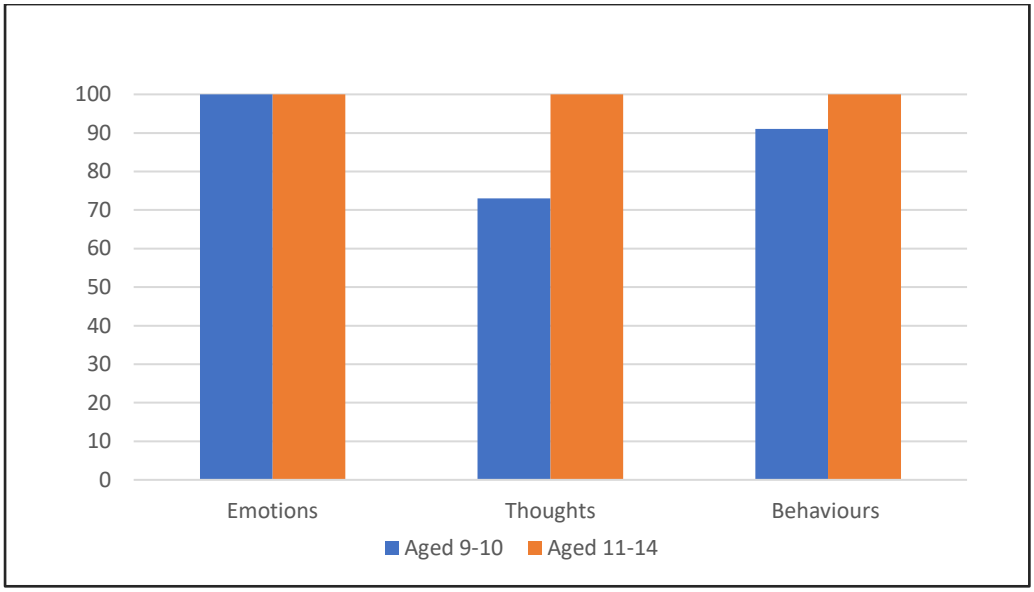

Figure 14. Frequencies of the reported acquisition of core CBT knowledge.

Note: The frequency of subjective reports of the perceived acquisition of knowledge about emotions, thoughts and behaviours are reported according to the two age groups: younger (9-10 years) and older (11-14 years).

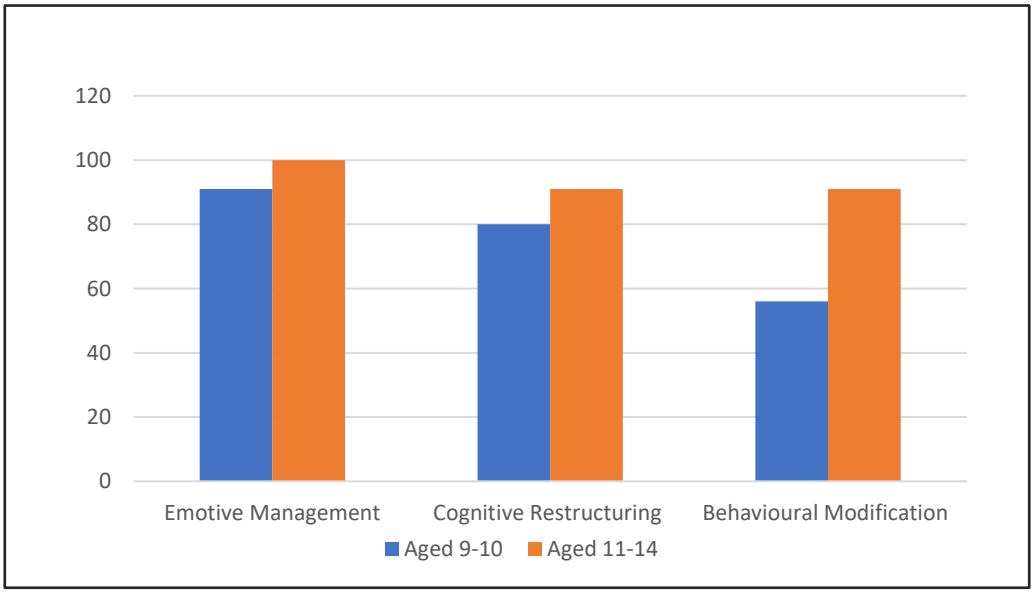

Figure 15. Frequencies of reported acquisition of core CBT components.

Note: The frequency of subjective reports of the perceived acquisition of emotive management, cognitive restructuring and behavioural modification skills are reported according to the two age groups: younger (9-10 years) and older (11-14 years).

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7.6.1.3.1 Retention and application of emotive control strategies

Children most often reported the retention and application of emotive management components of the intervention, with ***self-monitoring*** "we learnt how high it is when you are scared" indicated as the most useful and ***relaxation*** "(if you are scared) you can relax. Lie down on your back, stretch out your arms and legs and close your eyes" as the most informative. Importantly, children across age groups understood the application of these components, illustrated by detailed explanations, such as: "(you use) the [9]fear meter to overcome your fears … the green means you are not scared, the orange means you are a little scared and the red means you are very scared" and "the relaxation (is) to feel better … to calm my body when I am scared". (You relax) "by thinking of your soft, safe place … think of waves (at the ocean), breathe in and out, and make your (body) and face tight and relax (them)." Notably, one participant who demonstrated a high anxiety score on the SCAS reported initial difficulty in relaxation: "(I didn't like) to relax, to be floppy. I thought that, if I open my eyes then the people won't be there anymore. I didn't trust it. It got easier the more I did it."

Children illustrated the **application of core emotive management** components postintervention by means of personal narratives. The core components most used and applied independently or jointly as delivered in the programme were:

(1) ***Self-monitoring***, for example: "After the programme, I use the *fear meter* when I am scared at night."

(2) ***Deep muscle relaxation***, for example: "I relax … I sit back, stretch out my legs and arms, make fists, pull up my shoulders to my ears, pull in my stomach … you can curl up on your bed too."

(3) ***Deep breathing,*** for example:

> *I change my scared feeling by using the relaxation … when I have to do an oral in front of my class, I use the fear meter to help me … my feelings are on a ten, then I breathe in and out … my heart still beats very fast, but I have learnt to calm down my*

[9] The "Fear Meter" is a visual tool utilised in the BRAVE programme used to monitor the intensity of experienced anxiety or fear.

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feelings … you can get your feelings down from a 10.

(4) ***Visualisation*** strategies, for example: "I do the relax in the mornings before I go to school. I lie on the bed and then I think of my special place."

7.6.1.3.2 Retention and application of cognitive restructuring strategies

Cognitive restructuring components of the intervention were retained 3 months postintervention and reported as helpful second most frequently after emotive management. A few children in the younger age group (9-10 years) indicated that competencies had not been acquired and stated for example, "I can't change my bad thoughts" and "I don't remember anything about that". Others indicated the acquisition of intended competencies with statements, such as "the program helped [us] to think differently," and "(we learnt) about helpful and non-helpful thoughts" Amongst those who reportedly acquired intervention-based **cognitive restructuring competencies**, the following components were most reported:

(1) ***Thought stopping***, for example: "if you have a negative thought, you must stop and think before you do (something)."

(2) ***Identification and elimination of unhelpful thought patterns***, for example "[10]burst that bubble" and then "think of things that will help you … think positively", (it is to) "get negative things out of your brain: burst that negative bubble," and "if you burst that bubble, it's because you are thinking something negative … we mustn't think negatively, we must think positively."

(3) ***Positive self-talk***, for example "I say to myself: 'I can do it!'" were indicated as most impactful in the management of anxiety or threatening situations. Children's feedback indicates that cognitive restructuring components were well understood and applied postintervention. Notably, younger children (aged 9-10) retained and applied the ***identification and elimination of unhelpful thoughts*** component inconsistently, as in "I can't remember anything about the thought bubble" and at times misinterpreted it, for

[10] *Burst that (Thought) Bubble* refers to an interactive activity utilised in the BRAVE programme intervention to deliver the core component of cognitive restructuring.

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example: 'It's negative to burst someone's bubble – it's rude to burst other people's negative thought bubbles. It's not nice."

Children illustrated the application of core cognitive restructuring components by means of a number of **personal narratives**:

(1) ***Positive self-talk***, for example:

> *At night when you go to sleep, then you think you will wake up, and then a man will stand there and he will do something to you, but now I relax and I think to myself \ that I am safe – there are other people in the house.*

(2) ***Cognitive restructuring***, for example: "When I have a bad thought, I just put a needle on that negative thought and I burst it … and then I think positively."

> *In the (dance) class we have to practice individually in front of the whole class (this makes me scared) …. (it helps) to burst the thought bubble. If you burst a bad thought, you can think again, think positively … I say to myself: 'I can do it.*

Additionally, children reported an understanding of the interaction between cognitions and emotions, as illustrated in: "If you have a bad thought, you must burst it, burst the bubble so that you can feel better".

7.6.1.3.3 Retention and application of behaviour modification strategies

Children reported a reduction of avoidant or unhelpful behaviour after the intervention, as illustrated by: "(now when I get scared or shy, I do things differently) like yesterday, a child fell off the stairs and I helped her and I even went to hospital with her," but less frequently reported the retention and application of specific behaviour modification components of the intervention. Children reported variable retention of behavioural modification core components, with younger children (aged 9-10 years) on the lower level of reporting with some stating, "I don't remember anything about behaviour." Components **most often reported as useful** and applied postintervention include:

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(1) ***Problem-solving*** **and** ***planning*** skills, as in "I learnt to think about the plan I want to make … if there is a [11]cross next to my plan, it is detrimental; if there is a tick next to my plan, it is positive, helpful – the right decision to make."

(2) ***Improved coping*** as by a child who reported that after the intervention, he was better able to cope with an embarrassing situation and another who could solve conflict:

> *I hurt my fingers and they were in bandages. I had to go to school like that … at school I decided to laugh at my hands that look funny first… I knew they would make fun of me … I did that so that I wouldn't feel uncomfortable.*
>
> *My mother fought with me … then I could talk things through (instead of running away or fighting back).*

(3) ***Improved understanding of the consequences*** **of** ***behavioural choice****s*, illustrated by "we learnt that every plan has a consequence".

Importantly, consistent with CBT theory, reports of effective behaviour modification postintervention often included an **integration of emotive management and cognitive restructuring components.** The following examples illustrate how cognitive restructuring components assist in the modification of behaviour: "You must *stop and think.* If you are thinking negatively, ***stop and think*** before you do something. If the plan is negative, burst that bubble" and,

> *We have a strict home … I would just say something, blurt something out. I would get nervous, because my mom would shout all the time. Now I stop first and I think (before I say something)," and "(you have) a new choice, once you've burst that (thought) bubble.*

An understanding of how cognitions and emotions play a role in behavioural choices assisted children in **modifying behaviour**, for example: "If you are scared or you get a fright,

[11] The cross and tick refer to an activity used in the *Brave* intervention to deliver the evaluative skill in problem solving.

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you can ask yourself what you are going to do (about it) by (being) either positive or negative," and,

> *You can think something bad. You can think something exciting or happy. Bad thoughts: if you have them, then you don't feel happy. What can you do then? Well, for example, if someone bullies you, you can take an adult with you, you can say you are not scared. Don't be shy.*

More examples of the integrated application of the three components of the intervention are illustrated in narratives of its application to conflict-based situations where they were applied for anger management (see *Anger Management* below).

7.6.1.4 Generalisation of core intervention components

Children reported the generalisation of core components in the dissemination to family members, the management of challenging interpersonal relationships and in the application of core components to externalising symptoms, such as anger.

7.6.1.4.1 Dissemination of Core Components

Participants of one group indicated an **interest in assisting with the dissemination** of the BRAVE programme to other children in their community, because:

> *We know now what to think and what to say, but the other children don't … we have skills now that the other children don't have, and we can help [the facilitators] to do the programme with other children … so that they can also be 'Dappers' (Brave Ones).*

Additionally, a number of participants reported **sharing emotive management skills** (relaxation in particular) **with family members**, as illustrated in:

> *I help my dad when he is stressed. When he comes home in the evening, I teach him how to relax instead of smoking.*

> *I show my younger sister how to do the relaxation exercise at home … we sit on a` chair, close our eyes and think of children that have a good time playing.*

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I taught my brother about making positive plans and how to relax. He said it's a good idea. I felt so different and then we hugged.

I taught my mother how to relax, because she was very angry the other night. She did what I told her to do and said she felt better. Then she gave me a hug and a kiss.

7.6.1.4.2 Management of Challenging Interpersonal Relationships

Children reported utilising core components of the intervention in managing challenging interpersonal relationships, **particularly conflict** associated with those relationships. ***Cognitive restructuring*** skills were most often applied to bring about change in avoidant behavioural responses to situations, as illustrated in the following example:

I am not the way I was – I didn't listen to my mom and dad. I ran away from home. The programme taught me to think differently. I ran away from home because I was angry. I have decided it doesn't help to run away, you must go back home again anyway.

7.6.1.4.3 Anger Management

An interesting and context-specific (kindly refer to Chapter 5) application of core intervention components was in reports of utilising them in the management of anger. One child indicated that this application resulted from the ***intervention's success in helping him*** to overcome elevated levels of social anxiety: "I measure my angry feelings now, not my shy feelings. I don't feel shy anymore." Children reportedly found the intervention helpful in the management of anger, as illustrated by: "I get angry really quickly. Relaxation helps with that … I do relaxation when I get mad."

Children reported an integrated application of core behavioural modification components, such as ***problem solving and the consideration of consequences*** to change externalising behaviour, for example: "My friend hit me. Before the programme, I would have hit him back. Now, I rather go tell the teacher so that I don't get into trouble."

Another child reported ***changing bullying behaviour*** with the application of *cognitive restructuring* (*positive thinking*), which was maintained by the reward *of improved interpersonal relationships* as illustrated in:

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My new plan is not to bully children any more. I bullied kids in the past. BRAVE helped me to change that. I now have new friends and a better relationship with my aunt. Thinking positive helps.

Emotive management* or *cognitive restructuring reportedly assisted a number of children in changing aggressive behavioural responses, for example:

At school, I was washing my hands and another child splashed me with water… I then threatened him, but at break time I went to apologise to him. The BRAVE programme has helped me to calm down my feelings.

I used to feel angry when children taunt me, but not anymore. Now I go tell the teacher. I think of positive things, like telling the teacher and not fighting with them. It's their problem now.

I was playing a club soccer match this Saturday, and I hurt my leg and couldn't play anymore. I measured my anger … it was between an 8 and 10. I did the relax (gives detailed description of relaxation delivered in the intervention) right there where I was sitting. My anger changed from a 10 before (the relaxation) to a 5 after. I didn't know before that you could measure your feelings.

Another narrative illustrates the application of ***integrated core components in the management of conflict-based interactions***:

A boy at school wanted to fight me. So, I said to myself: 'Calm down. Stand your ground.' I thought '[12]*Stop and think: 'What will happen if I fight back? I'll be expelled because I am already on my last (warning) at school.' I relaxed myself and calmed down, and then I said to the guy 'You'll win (this fight)', I told him I'm scared of him even though I'm not scared of him anymore. (I said that) so that I can avoid that fight and not get expelled."*

[12] *Stop and Think* refers to a Cognitive Restructuring activity utilised in the BRAVE programme.

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This narrative illustrates clearly the application of emotive management, cognitive restructuring and behaviour modification in response to an aggravating situation.

7.7 Discussion of the qualitative outcomes evaluation

It is argued in this section that subjective reports of the perceived benefit and effectiveness of the BRAVE programme support the researcher's assertion that qualitative data may contextualise effectiveness outcomes in intervention research (as suggested by Drabble & O'Cathain, 2015). The intention of a prevention intervention such as the BRAVE programme is to lower elevated levels of anxiety symptoms by means of transferring appropriate CBT-based coping skills to children who are considered at risk. Thus, subjective evidence of anxiety reduction, increased coping and the acquisition, retention and post-intervention application of CBT-based skills should be explored during programme evaluation.

The findings of the qualitative perceived effectiveness evaluation elucidated useful outcomes of the BRAVE CBT-based programme that firstly included the promotion of resilience and improved coping, which relates to Bandura's (1988) concept of self-efficacy that when a sense of control and mastery is instilled, a child may be better equipped to deal with anxiety symptoms. Secondly, participants reported improved communication and interpersonal relationships as a useful outcome of the BRAVE programme which is in line with other CBT-based prevention programmes that focus on the development of protective factors, such as social support (e.g. Barrett & Turner, 2004). Thirdly, participants indicated that a reduction in anxiety and improvement of affect were useful outcomes of the BRAVE programme, both of which may be linked to reported improved social support and self-efficacy.

Exposure has been established as vital to effectiveness of CBT-based interventions for anxiety problems in children, which is supported by the review of 50 years of research on evidence-based interventions by Higa-McMillan et al. (2016). Similarly, the findings in this study support the value of exposure with children reporting benefits, a reduction of anxiety and the application of exposure post-intervention to participate in previously feared activities such as horse-riding and dancing. This also indicates that the program demonstrates potential assisting participants in distinguishing between the avoidance of unrealistic fears and the everyday, protective and necessary avoidance associated with many South African contexts. Although concerns related to exposure with children have been raised, the current study agrees with Kendall (2005) and Muris (2007) that several formats and creative applications can result in exposure that is viewed as rewarding, conducive to the reduction of anxiety and

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accessible as a means of developing coping skills, as communicated by participants in the current study.

The qualitative perceived effectiveness findings indicate promising results in terms of the acquisition, retention and post-intervention application of core (psychoeducational) components of the CBT-based BRAVE programme. Children reportedly experienced the psychoeducation as informative and transformative and reported the acquisition, retention and application of skills with endearing and encouraging narratives of personal change. Emotive management was identified as the component with the strongest impact across age groups. Cognitive restructuring was variable with age, but still well applied and utilised. Behavioural modification was evident, but also variable with age and not closely tied to intervention outcomes.

The researcher was able to consider individual responses in the qualitative outcomes evaluation separately for the younger 9-10-year age group and the older 11-14-year age group. This illuminated developmental considerations in the effectiveness of the BRAVE programme. Younger participants responded best to emotive control strategies – this may be due to the fact that relaxation training was most repeated during the delivery of the programme and therefore best acquired or because it was a practical and concrete activity that was more suited to their developmental level (*Concrete Operational Period*, Piaget, 1972). Older participants responded well to cognitive and behavioural control strategies that were more hypothetical, verbal and logical, which ties in with the *Formal Operational Period*, Piaget (1972).

Finally, the generalisation of programme components may be considered an indicator of the success of an intervention. Findings of the current study indicated that behavioural modification, emotive management and cognitive restructuring components of the programme had been generalised in terms of dissemination to families, the application to other life difficulties such as interpersonal relationships and to anger management.

7.8 Synthesised discussion of the quantitative and qualitative findings

The purpose of the mixed-methods programme evaluation was to explore the effectiveness of the BRAVE programme in terms of the self-reported reduction of elevated levels of anxiety symptoms and the increase in application of programme-based coping skills after participation in the intervention.

The quantitative findings suggested a downward trend in anxiety levels that reached significance 3 to 6 months post-intervention which, although interpreted with caution in the

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absence of adequate significance findings, does imply potential, preliminary trends toward delayed effectiveness of the BRAVE programme in reducing elevated levels of anxiety symptoms. This interesting pattern in the reduction of elevated anxiety symptom levels has been found in similar contexts in South Africa, as seen in Mostert and Loxton (2008) and Visagie (2016) and has important implications for future programme effectiveness evaluative studies as the tendency towards a delayed improvement response should direct planning and interpretation of results as recommended by Barrett and Turner (2004). The non-significant result of the between-groups effects in the current study may very well be explained by the delayed improvement response discussed above or due to the small sample size.

Even though there are a number of interpretations of the utility and purpose of pilot studies, the researcher positioned this pilot study as explorative of trends of potential benefit of participation in the BRAVE prevention intervention. Potentially an evaluation on a larger scale with identified improvements in programme content and delivery (kindly refer to Chapter 8) may allow for robust effectiveness evaluation.

Considering also the novel application of a brief and intensive delivery of the BRAVE programme, the researcher is cognisant of the potential impact of dose and time-frame on the effectiveness of the intervention. However brief, intensive CBT treatment programmes have indicated promise with the maintenance of effects over time (Elkins et al., 2007).

Additionally, the limitation of using a translated and CCA measurement tool was explored in Chapters 4 and 5 of the current study. Considering this limitation, it may be important to deliberate on the reliability and validity of utilising outcomes measures exclusively without the possibility to explore understanding and, as also argued by Visagie (2016) in her study in a South African context, to ask follow-up questions imperative to elucidating participant understanding. The statistical findings were therefore interpreted with caution.

In the current study, in line with O'Cathain, et al. (2013), the application of qualitative data contextualised findings in the quantitative effectiveness evaluation and enabled the researcher to discover developmental trends in the rate of successful acquisition of core intervention components in the BRAVE programme. Children from older age groups (aged 11-14 years) indicated higher rates of successful acquisition of CBT-based skills, particularly skills associated with cognitive restructuring and behavioural modification during exposure. This finding potentially contextualises the finding that only the older 11-14-year age group in the current study presented a significant decline in anxiety scores on the SCAS as opposed to the younger 9-10-year age group.

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A longitudinal discontinuity analyses by Peris et al. (2015) indicated that cognitive restructuring and exposure were associated with accelerated progress in anxiety symptom scores and general functioning after intervention. Additionally, Essau et al. (2012a) found age differences in response to CBT-based prevention interventions. Similar to the findings of the current study, older children were argued to utilise cognitive strategies more and therefore required more practise for the impact of these strategies to become apparent. This ties in with the statistical findings of the current study that illustrated a delayed response, as well as age differences in statistical effectiveness findings as well as in qualitative reports on which strategies were understood and applied. This interesting finding is of value as it directs the researcher toward one of two conclusions: that the BRAVE programme requires further simplification to reach younger participants or that children in this context are developmentally ready for a programme such as the BRAVE at a later age than in other (western) contexts.

In this chapter, a case is made for the inclusion of qualitative effectiveness evaluation to (1) better understand the outcomes of statistical effectiveness evaluations, (2) to consult meaningfully with children on the potential benefits, strengths and weaknesses of interventions, and to (3) develop more in-depth understanding of the additional (perhaps non-quantifiable) benefit of participation in such programmes.

7.9 Chapter summary

This chapter reported the results of the mixed methods evaluation of the benefit and effectiveness of the current study. The chapter briefly restated the reasons for the mixed-methods approach to the evaluation of the preliminary effectiveness of the BRAVE prevention intervention. The statistical sample was re-stated and the study time-line was presented, after which a descriptive analysis of the trend of the quantitative data was given. The main analyses in terms of the stated hypotheses were provided and a discussion of the findings was presented. These analyses were followed by the presentation of a deductive analysis of the qualitative data pertaining to the effectiveness of the intervention. A discussion of the qualitative findings was presented. The chapter was concluded with an integrated of discussion of the mixed-methods findings. In addition to the evaluation of the effectiveness of the intervention, the researcher considered the feasibility and acceptability of the intervention as (1) indicated by participant feedback and (2) indicated by observation data. The results of the feasibility and acceptability study will be presented in Chapter 8.

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CHAPTER 8: *PHASE 2* - FEASIBILITY AND ACCEPTABILITY EVALUATION FINDINGS AND DISCUSSION

Chapter 8 firstly presents operational definitions of feasibility and acceptability as evaluated in the current study. Secondly, frameworks for the feasibility and the acceptability evaluation of the BRAVE programme are outlined. Thirdly, feasibility findings from programme implementation observers and information recorded in the researcher's field notes are presented and discussed. Fourthly, acceptability findings from participant session wise and 3-month post-intervention follow-up responses, and programme implementation observers are presented and discussed. Fifthly, the researcher presents two vignettes as illustrations of participant responses to the BRAVE programme. The chapter is concluded by an integrated discussion of the feasibility and acceptability findings of the current study.

8.1 Operational definitions of feasibility and acceptability

Feasibility refers to the degree to which an intervention can be used successfully within a specific context (Beidas et al., 2013). In adaptation studies where existing programmes are altered to fit with new contexts, it is important to establish the feasibility of implementing and evaluating the intervention before it is tested on a larger scale (Blok et al., 2018). Feasibility, according to Blok et al. (2018) enables objective assessments of aspects related to successful future implementation. As an intention of the current pilot study was to consider the potential feasibility of delivering the brief, intensive contextually adapted BRAVE programme to vulnerable children in a disadvantaged semi-rural setting, feasibility was not only operationalised according to its conventional definition of satisfactory rates of recruitment, retention and attendance. Feasibility was also considered in terms of context-specific logistical and practical facilitators of and barriers to the implementation and evaluation of the intervention. Finally, feasibility was defined as the degree to which an adapted intervention could be implemented as intended within a new context.

Sekhon, Cartwright and Francis (2017) highlight that even though acceptability evaluation is considered important to intervention research, few guidelines are offered in terms of its definition. Generally, it is understood that acceptability relates to satisfaction with and maintained interest in a programme as expressed by both those delivering and those receiving the programme. Importantly, if interventions are considered acceptable, adherence and outcomes may be improved (Fisher, McCarney, Hasford, & Vickers, 2006). Acceptability may be defined as a multi-faceted construct that reflects cognitive and

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emotional responses to the perceived appropriateness of an intervention (Sekhon, et al., 2017). Aspects of the conceptual framework of acceptability proposed by Sekhon, et al. (2017) are used to formulate a definition of acceptability evaluation for the current study, which included the *affective attitude* - feelings about the programme and *perceived effectiveness* – whether the programme was considered beneficial and successful in achieving its goals of psychoeducation and anxiety reduction.

8.2 Frameworks for the feasibility and acceptability evaluation study

8.2.1 Framework for the feasibility evaluation study.

Feasibility was explored as it applied to the implementation of the current research procedures in a disadvantaged, semi-rural South African community context with Afrikaans-speaking farmworker children aged 9 to 14, and the implementation of the BRAVE anxiety prevention intervention programme in the above-mentioned context. Towards this end, this chapter presents findings on:

- Recruitment, retention and attendance rates;
- Researcher observed logistical barriers, practical limitations and facilitators of delivery; and
- Observer reported intervention implementation fidelity (Breitenstein et al., 2010), of the context-specific implementation of the BRAVE programme.

Feasibility relates to whether an intervention programme and study can or should be implemented on a larger scale in future (Blok et al., 2018). Therefore, the current study and the BRAVE programme were considered in line with the argument by Stallard and Buck (2013) that feasibility depends on good recruitment, retention and attendance rates (Kindly refer to Section 8.3.1 for findings). Additionally, feasibility was considered in terms of the real-world accessibility of the intervention (Stallard & Buck, 2013), as influenced by context-specific logistical and practical barriers and facilitators (Kindly refer to Section 8.3.2 for findings). Finally, feasibility relates to whether an intervention is delivered as intended (Stallard & Buck, 2013). Breitenstein et al. (2010) argue that the feasible delivery of prevention interventions as intended relies on the efficacious rendition of programmes into practice within new contexts, which according to Barrett and Turner (2004) will positively affect the outcomes and cost-effectiveness. Inadequate implementation fidelity may be the

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reason that interventions that are effective in highly controlled studies are not found to be equally effective when implemented in community settings. Breitenstein et al. (2010) present a useful framework for the evaluation of implementation fidelity, which was applied in the feasibility evaluation of the current study (Kindly refer to Section 8.3.3 for findings).

The framework suggested by Breitenstein et al. (2010) conceptualises implementation fidelity according to three categories (codes for the current analysis): intervention adherence, intervention competence and intervention context. The first category, *adherence* refers to the extent to which the protocol content (and its prescribed behaviours) is delivered fully. The researcher consulted observer data provided by four observers - two observers in each session that was delivered to the IIG and DIG - and tallied reported observations of adherence to content and prescribed behaviours in each session. The second category, *competence* refers to the extent to which the protocol intervention process was implemented satisfactorily and includes (i) skilfulness in delivery, (ii) quality of communication, and (iii) responsiveness to participants. The third category, *intervention context*, is considered vitally important to the evaluation of programme fidelity in a community context as it allows for contextualisation and interpretation of *adherence* and *competence* findings. Intervention context may be conceptualised in terms *intragroup dynamics* such as group programme delivery and group dynamics, and *contextual variations* such as implementation setting (Breitenstein et al., 2010).

8.2.2 Framework for the acceptability evaluation study.

Acceptability was explored as it applied to the satisfaction and appropriateness of the contextually adapted BRAVE programme. Rates of satisfaction, reasons for acceptability evaluations and reports of the satisfaction and appropriateness of contextually adapted (CA) content and activities were considered in the acceptability evaluation findings. Towards this end, this chapter presents findings on the acceptability of the BRAVE programme:

- Participant session-wise rates of satisfaction and reasons for acceptability evaluation;
- Participant 3-month post-intervention follow-up reported rates of satisfaction; and reasons for acceptability evaluations;
- Participant and observer reported satisfaction with and appropriateness of CA content and activities; and
- Programme implementation observer reported acceptability evaluation.

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Martinsen et al. (2016) argue for the importance of evaluating the feasibility and acceptability of early or preventative interventions delivered in real-life settings as it is not only important to consider effectiveness, but also imperative to evaluate how well an intervention programme is received in a new context. Additionally, when a programme is adapted in order to enhance its fit with a new context, acceptability in particular determines whether the priority population judges a programme to be successful in achieving its intended outcome (Martinsen et al., 2016). This is evaluated by considering the perceived affective attitude (reported in the acceptability evaluation in this chapter) and perceived effectiveness (reported in Chapter 7) of an intervention (Sekhon, et al., 2017).

8.3 Feasibility evaluation findings the of the BRAVE programme

Figure 16 provides a visual presentation of the feasibility evaluation reported in Section 8.3.

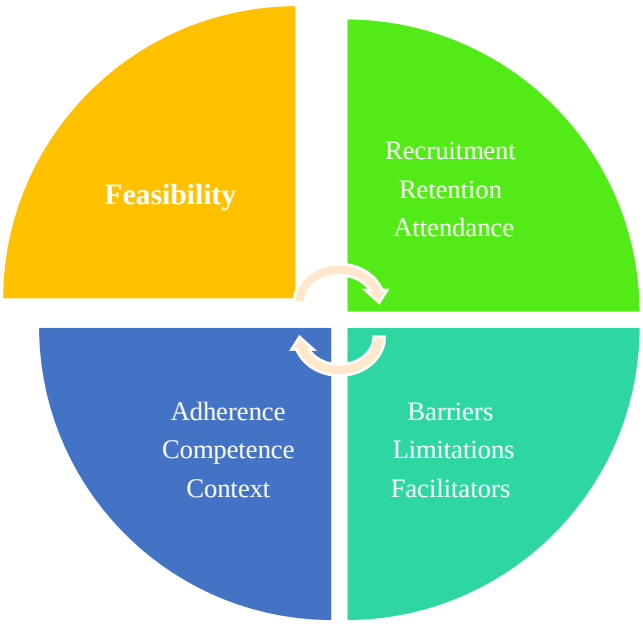

Figure 16. Researcher compiled representation of feasibility evaluation of the current study.

Note: Feasibility in the above figure is defined by 3 levels of interpretation. Firstly (in the green segment), feasibility is defined as recruitment, retention and attendance rates. Secondly (in the light blue segment), feasibility is defined in terms of barriers, limitations and facilitators of programme implementation. Thirdly (in the blue segment), feasibility is defined as implementation fidelity elements of adherence, competence and context.

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8.3.1 Recruitment, retention and attendance

The collaborating NGO, at the time of the implementation of the BRAVE programme, indicated that there were 147 potential participants between the ages of 9 and 14 available on 10 different farm sites [personal communication with principal social worker, 3 March 2016). In terms of *Phase 2* of the current study, three farm-sites (Farm 1, Farm 2 and Farm 3) were identified to conduct the pilot study. There were a total number of 30 eligible children between the ages of 9 and 14, who attended aftercare services on all three farm sites and met the inclusion criteria. *Recruitment* resulted in parental consent and child assent obtained from 23 of the 30 (77.7%) eligible children.

Retention was considered satisfactory as base-line (T1) assessments were completed by 23 of the assenting children, of whom 21 completed assessments at T2. In terms of the attrition of two participants, one participant withdrew from the study after T1 and before programme implementation due to a stated lack of interest in participation. The other participant withdrew from the study after Session 3 of the programme, because she "didn't like it and didn't want to" take part. In terms of compliance with the ethics protocol of this study, the attrition of the participants was reported to the clinical social worker of the NGO for follow-up (Kindly refer to Appendix L for referral agreement). Post-intervention and follow-up assessment retention rates were very good with all remaining 21 (100%) participants completing T2, T3 and T4. Retention rates for the 3-month post-intervention follow-up focus group session were also high with 20 of the 21 remaining participants (95%) being available for participation. Attrition of one participant at the three-month follow up was due to acceptance to and enrolment in a boarding school.

Session attendance was good overall with 16 participants (76.2%) attending all 8 BRAVE sessions, 19 participants (90.5%) attending 7 or more sessions, 20 (95.2) attending 6 or more sessions and 21 (100%) attending more than 5 sessions. Three participants missed a session because the collaborating NGO arranged an alternative off-site activity on the day of the planned session delivery. Other absences were due to family obligations, illness or absence from aftercare services on that particular day. Absences from sessions were more frequent on Farm 1, which was the only site where not all children attending the aftercare services lived on the farm as well. This meant that some participants had to travel to the farm site in order to attend the aftercare and to participate in sessions. As part of the delivery format of the BRAVE programme, each session started with revision of the previous session content. Additionally, children were given homework activities about the content of each session (Show-I-CAN tasks) - these activities were also revised at the beginning of each

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session by the programme facilitators either individually or in the group. This process allowed for the compensation of content missed when absent from a session.

8.3.2 Researcher observed logistical barriers, practical limitations and facilitators of delivery

A visual summary of the logistical barriers, practical limitations and facilitators of implementation may be viewed in Figure 17 on page 176.

Although the participating NGO indicated a great need for mental health intervention amongst children who attended their aftercare services, logistical and practical barriers to the delivery of intervention programmes in these semi-rural farm settings were identified during *Phase 1* of the current study which influenced several delivery adaptation decisions (Kindly refer to Chapters 4 and 5). These barriers are presented in this section to consider the success of the contextual adaptation of *Phase 1* in enhancing feasibility. The researcher additionally identified limitations to, as well as facilitators of, the delivery of the BRAVE programme in semi-rural farm settings that were identified in *Phase 2*.

Logistical Barriers to the usual weekly delivery of CBT-based intervention programme sessions were **identified during *Phase 1***, the contextual adaptation step of the current study: (1) *travel distances and inconsistent transport*, the (2) *priority of schooling support*, (3) *parental expectations*, and (4) *demanding schedules* were barriers to the traditional weekly delivery of programme sessions.

(1) *Travel distance and inconsistent transport* were identified as potential barriers to the consistent delivery of weekly, after-school sessions as children generally arrived very late at farm-based, NGO-offered aftercare services with a general trend of arrival between 3:30 pm and 4:30 pm. This was due to long distances to and from various schools (with some children attending schools in closer proximity to farm sites than others). Additionally, inconsistent and unpredictable transport in the form of farm trucks, minibus taxis or trains often resulted in children arriving inconsistently or late, and periodically walking long distances from school.

(2) *Priority of schooling support* was emphasised by NGO consultants who reported low levels of reading, numerical and mathematical literacy for which educational interventions were prioritised. The aftercare schedule for children once they arrived from school included

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the provision of lunch (for some the first meal after breakfast), the implementation of educational interventions and assistance in the completion of homework.

(3) ***Parental expectations*** were associated barriers to the weekly delivery of programme sessions during school terms as the completion of homework and assistance with schoolwork were indicated as a priority for parents who often also required children home by 5 pm.

(4) ***Demanding schedules*** during school terms were described by NGO representatives and children. The day would start at 5 am in the morning, with children on their way to school by 6 am and arriving at school by 7 to 7:30 am. Considering that sessions would be implemented only after 4:30 pm in the afternoons following demanding school and aftercare work, this would mean a 12- to 13-hour day before they would return home to rest. NGO consultants questioned the feasibility of the delivery of BRAVE programme sessions at NGO aftercare services during school terms.

Hence, due to context-specific logistical and practical barriers and the importance of implementation that is child-friendly, the BRAVE prevention programme was adapted towards a brief, intensive delivery format. It appeared that the implementation of the programme during school holidays or at year-end, when there were no or few conflicting schooling or aftercare schedules, expectations or activities, was feasible as a total 47 of the 48 sessions were delivered as per the researcher's schedule and 40 of the 48 sessions were delivered in the expected venues. The researcher identified no logistical barriers.

Practical limitations to the implementation of the BRAVE programme were **identified in *Phase 2*** of the current study. These limitations included: (1) *disruptions and interruptions*, (2) *unexpected venue changes*, (3) *changing NGO schedules*, (4) *multiple delivery sites*, and (5) venue limitations.

(1) ***Disruptions and interruptions*** affected the delivery of sessions, for example curious little children peeping through windows and others walking into sessions. Noise and disturbances in and around venues were experienced as intrusive by the researcher and her team. As many of the venues were very small and had to accommodate a large number of children aged 7 to 19 who attended aftercare, noise, interruptions and disturbances were a regular occurrence. However, it must be noted that it did not appear to have such a significant impact on the children who seemed used to and comfortable with the environment as it was.

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(2) ***Unexpected venue changes*** practically affected the delivery of sessions. On one occasion the venue had to be moved to the house of an aftercare teacher who also lived on the farm, due to a Christmas carol concert rehearsal in the (same) very small venue, on another occasion a session had to be moved to the closed restaurant of the wine farm due to a lack of space in the aftercare venue, on yet another occasion the venue had to be moved as a result of farmworker workshops, and the venue on a farm site on which aftercare services were unexpectedly closed for the holidays had to be moved regularly between the community hall (which was built from dry-walling that was not sound-proof, attached to a very noisy household) and the aftercare venue was often locked before the arrival of the research team.

(3) ***Changing NGO schedules*** most notably affected implementation with unexpected closures of aftercare services, scheduling of activities for participants at the same time as planned sessions, and year-end functions (that affected the timing of the implementation of the DIG) and camps during the agreed implementation periods that necessitated repeated renegotiation.

(4) ***Multiple delivery sites*** were noted as a limitation due to travel time, distance and the cost of transport between sites. However, this limitation did not impact on the feasibility of the delivery of the programme and presented benefits that are discussed as facilitators to delivery below.

(5) ***Venue limitations*** were noted. Venues were not always best suited to the delivery of confidential, sensitive sessions. For example, in one venue the entrance to the only aftercare restroom was in the designated room for delivery, which was also the only room with a door that could be fully closed. In another venue, the door to the designated room for delivery was unhinged in one session and completely detached in the next. It was a solid wooden door and the researcher was forced to use her body to keep the door safely closed during the session. The current study implemented individual completion of self-report outcomes measures and forms with the assistance of trained data collectors for which there was a lack of venues. However, the limitation was overcome with creative resourcefulness of the research team and community members with data collection often done under trees away from aftercare centres, in gardens, in community members' homes and even in the research teams' cars.

The researcher must highlight that the identified limitations may be found in any community research setting and should not be interpreted as linked to the specific semi-rural

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farm settings of the current study. Additionally, a number of limitations appeared to be more of a concern to the research team than the children who were observed to be comfortable with and used to the environment. Moreover, despite the logistical limitations mentioned here, with flexibility and commitment from the research team, facilitators, NGO staff members, community members and children, all 8 sessions of the BRAVE programme were delivered to all 6 groups.

Facilitators of delivery of the BRAVE programme were also identified and included: *(1) buy-in from NGO staff members*, (2) *support from community members*, (3) *enhanced accessibility of children*, and the (4) *reduced threat of participation*.

(1) ***Buy-in from NGO staff members*** was most evident on two of the farm sites and enhanced the feasibility of delivery of the programme as they assisted with logistical issues, communication with children and parents, motivation of children to participate, ensuring availability of venues or alternative venues and supervision of non-participating children to facilitate a suitable environment for the delivery of sessions.

(2) ***Support from community members*** facilitated feasible delivery and took the form of parents who volunteered to act as liaisons with other parents and children in arranging pre- and post-intervention outcome data collection, offering their homes as sites for the research process, locating children who had forgotten about sessions and generally supporting the research team.

(3) ***Enhanced accessibility of children*** was also considered a facilitator of programme implementation and resulted from delivery in the community setting. This enabled researchers to access children, to locate them for sessions and to encourage participation.

(4) ***Reduced the threat of participation*** that resulted from delivery in a familiar setting close to home may have facilitated feasibility as children reporting that sessions gave them something fun to do.

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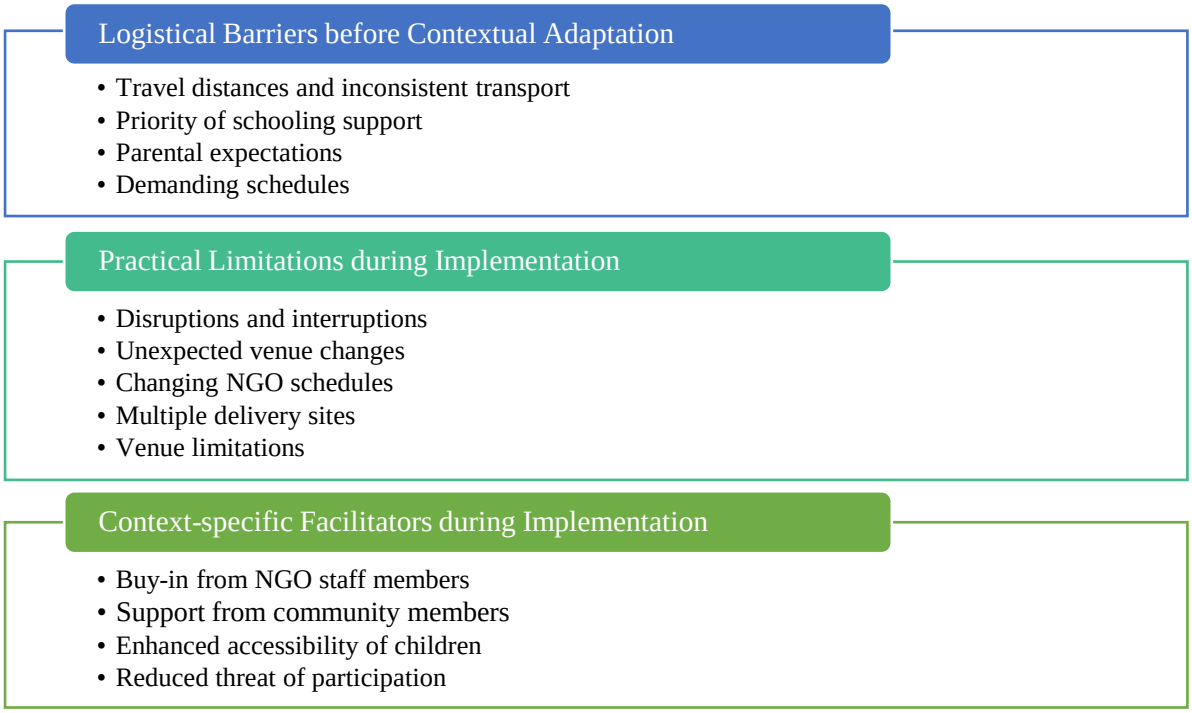

Figure 17. Summary of the logistical barriers, practical limitations and facilitators implementation.

8.3.3 Reports of intervention implementation fidelity in observer responses

As feasibility is linked to intervention implementation fidelity, the researcher applied the framework proposed by Breitenstein et al. (2010) in her analysis of data obtained from four independent observers who noted and evaluated content and process elements during the implementation of each of the BRAVE programme sessions (Kindly refer to Section 8.2.1 for an outline of this framework). This analysis was valuable in presenting findings regarding the feasibility of implementing the BRAVE programme in a semi-rural farmworker context in South Africa.

8.3.3.1 Reports of intervention adherence in observer responses

Intervention adherence refers to the extent to which **session content** *was delivered fully* and **prescribed behaviours** *were implemented.* Kindly refer to Figure 18 on page 178 for a visual summary of the observer reported intervention adherence findings

Qualitative reports of the ***delivery of session content*** was explored in a total of 96 programme implementation observation forms for evidence of the delivery of session content. All 96 observation response forms (100%) referred to at least one aspect of each session's

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prescribed content being delivered according to the programme protocol. The researcher then compiled a list of 18 specific content outcomes indicated in the intervention protocol and explored observational data for evidence of delivery. Observational data yielded 203 observations of a possible 216 content outcomes (18 content outcomes x 4 observers x 3 sessions) which indicated the overall **adherence to the delivery of 93.98% of session content**.

Qualitative reports from programme implementation observation forms revealed evidence of ***adherence to prescribed behaviours*** stipulated in the intervention protocol that were thematically combined as:

(1) ***Scaffolding session content*** to facilitate child-friendly and effective delivery of psychoeducation: 'The facilitator scaffolds the concepts and overall purpose of the session and its content. This is meaningful as children do not always understand the bigger picture in the beginning.'

(2) ***Implementation of continuous revision*** to enhance acquisition of psychoeducational content: 'What stood out the most was the revision of the program. They could definitely remember the program.'

(3) ***Implementation of interactive and child-friendly activities*** to deliver session content: 'The role-play clearly demonstrated the content – it was engaging and evident it helped participants to understand.'

(4) ***Facilitator participation and support***: 'That (the facilitator) also took part in the exposure … it put them at ease … and the times when the facilitators work individually with the children … as children are more willing to talk about their real experiences.'

The researcher then proceeded to explore observer reports for **examples of non-adherence** to the programme's prescribed content and behaviours. This revealed non-adherence that were thematically combined as:

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(1) ***Forgetting session activities***: 'Facilitator 1 appeared to forget one or two things … HOWEVER she recovered well.'

(2) ***Forgetting or changing protocol delivery sequence***: 'The order of the content was switched around … I don't think the mix-up had real negative effects. They responded just as well …'

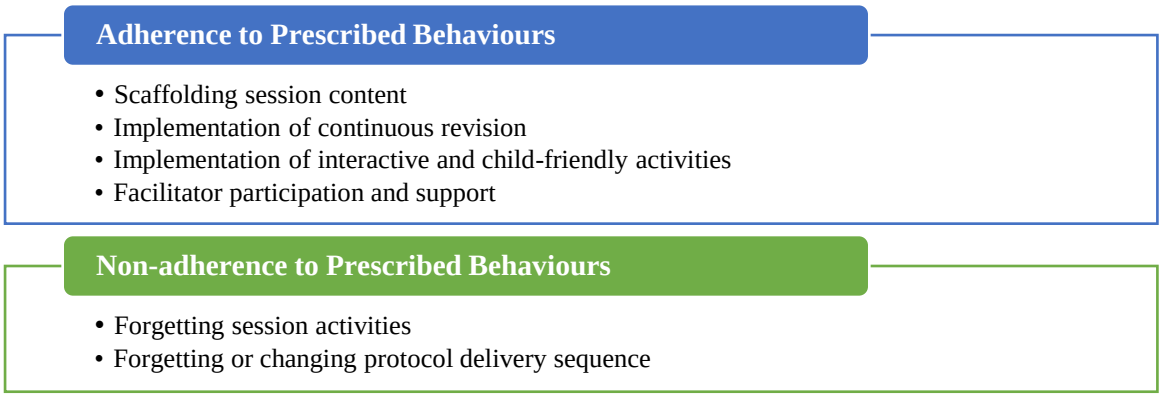

Figure 18. Summary of the observer reported intervention adherence findings**.**

8.3.3.2 Reports of intervention competence in observer responses

The researcher explored intervention competence (how well the protocol was implemented) in terms of: **skilfulness in delivery**, **quality of communication**, and **responsiveness to / of participants** as outlined in the framework by Breitenstein et al. (2010). Kindly refer to Figure 19 on page 181 for a summary of the observer reported intervention competence.

Skilfulness in delivery of the BRAVE programme was related by observers to: (1) *facilitator flexibility* in delivering content in context, (2) *checking for understanding* of programme content, (3) *effective group management*, (4) *programme delivery in context*, and (5) *time-management*.

(1) ***Facilitator flexibility*** reportedly enhanced the competence of programme implementation: 'Facilitator 1 was able to adapt (the) manual script in a way to be best understood and identified with by the group', 'Facilitator 1 is able to relate the content of the examples

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provided by participants to the content of the programme', and "The delivery was fantastic and flexible".

(2) ***Checking for understanding*** was considered important to skilful delivery in reports, such as: '(The facilitator) makes sure that the participants understand.' However, this was reportedly not consistently applied according to observer data that emphasised the importance of: 'ensuring participants understand content through asking if they understand, reinforcing or summarizing more often.'

(3) ***Effective group management*** was related to maintaining session *focus and order*, both of which were mostly observed, for example: '… when things got out of hand, the facilitator pointed back to the *We understand each other* contract' and 'the facilitator effectively steers the conversation back to the topic of the day every time the participants get distracted.' One observer noted the *skill required to manage younger groups* of children (aged 9-10 years): 'It is becoming apparent that working with these children (particular farm site and younger age group) requires a skilled and experienced facilitator. Facilitator 1 has counselling experience and instinctually handles crises well.'

(4) ***Programme delivery in context*** was considered important to competent programme delivery and illustrated by: 'The children's attention was divided today. They talked about (their friend's) memorial service the night before. The children are very restless … the facilitator was able to link the session to this context.'

(5) ***Time management*** reportedly affected competence of delivery and observers noted instances where it may have been detrimental to the fidelity of intervention implementation, for example: '(The) conversation about WEK task should be done in a more timeous manner to ensure that there is adequate time for the rest of the session.'

From these findings, it may be argued that fidelity in the implementation of an intervention protocol with children in a community context depends greatly on the level of skill of the programme facilitator to deliver the programme as intended.

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Quality of communication in the delivery of the BRAVE programme was linked to:

(1) ***Clear and effective communication***, for example: 'Facilitator 1 was very clear in her explanation of the concepts. She speaks simply and slowly.'

(2) ***Simple and child-friendly communication***, for example: "The facilitator explained the concept of being able to choose your reaction very well … in a child-friendly and simple way."

(3) ***Unclear and ineffective*** undermined the quality of communication, as illustrated by: 'Initially it appeared as though children struggled to grasp the concept behind the program (why they were doing it) – perhaps this delivery could have been clearer.'

Participant responsiveness was linked to intervention competence by:

(1) ***Active participant engagement***, for example: 'children challenged the content – showed they actively engaged with content.'

(2) ***Open sharing*** by participants who felt comfortable and safe, for example: 'the atmosphere is comfortable. Children shared easily. Definitely a "safe place" environment and children are very comfortable.'

(**3)** ***Responsive and engaging delivery***, for example: '(The facilitator) listened to the stories and examples of participants with genuine understanding and interest – this appears important!' and 'the ability of the facilitators to engage with the children was very positive!'

Problematic areas in participant responsiveness to the intervention were observed and identified as children being *distracted*, *seeming tired* or *not paying attention*, which will be considered in Section 8.3.3.3.

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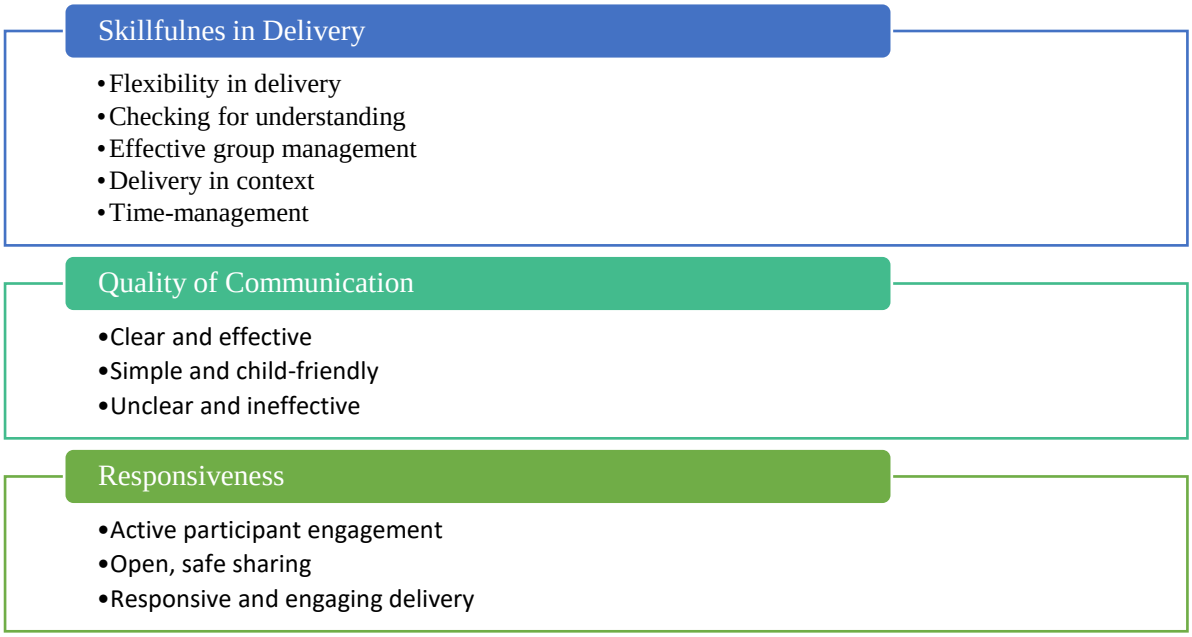

Figure 19. Summary of the observer reported intervention competence.

8.3.3.3 Reports of the intervention context in observer responses

According to Breitenstein et al. (2010) intervention context may comprise **intragroup dynamics** and **contextual variations**. Kindly refer to Figure 20 on page 184 for a summary of the observer reported intervention context. The importance of considering context in intervention fidelity may be illustrated by the following observation of the delivery of the BRAVE programme:

> *This session was a bit of a struggle. It did not progress smoothly for a variety of reasons: the time of day of after lunch (children were tired), mixed developmental levels, it was a special day (in the aftercare) so the children were overexcited, and the awkwardness of Participant 11's demeanour …*

Intragroup dynamics that may contextualise both adherence and competence findings of the current study were reportedly: (1) *varied group trust and cohesion,* (2) *distractibility and lack of attention,* (3) *issues of discipline*, and (4) *developmental concerns.*

(1) ***Varied group trust and cohesion*** was observed to influence programme delivery amongst different intervention groups on different farm sites. *Compromised group trust and cohesion* were noted in some groups, for example: 'Children laughed at each other … the participants

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were not willing to share their fears with one another, only with the facilitator … and are still embarrassed / nervous about relaxation. They giggle and are shy to talk about it.' In other groups, *trust and cohesion* were noted, for example: 'Participants were markedly more at ease and talkative in this session. They were so eager to participate and get the answers right. As participants were comfortable with one another, they … were a lot more open about their fears / anxieties.' Observers noted that even though some groups demonstrated less group trust and cohesion, *facilitator competence compensated*, for example: 'the participants were not willing to share their fears with one another … the children are too shy to share … but they clearly trust the facilitators because they allow them to read their examples to the group'.

(2) ***Distractibility and lack of attention*** of individual children and the tendency of group members to distract one another were noted, for example: '(participants were) occasionally distracted … distracted (laughing at one point) … get very distracted by things in the room' and 'participants were very distracted – perhaps direct conversation and ensure participation so not distract one another from the beginning.'

(3) ***Issues of discipline*** were reported seldomly by observers, but the potential impact on fidelity was noted, for example: 'Participants found the relax task humorous, pretended to snore – fidelity during the exercise.'

(4) ***Developmental concerns*** were noted in their impact on adherence and competence in programme delivery, for example: 'The pace was markedly slower than the previous venue. This may be due to the developmental level of some of the children (one of the participants needs a lot of extra attention to keep up)'.

These ***intragroup variations reportedly contextualised fidelity*** components of delivery, including adherence and competence, as is illustrated in: 'It is difficult to gage whether the lulls in the programme (delivery) are due to content (as different groups respond differently) or due to participants struggling to pay attention.' Observers noted the influence of intragroup dynamics on delivery: 'These participants were the first to 'jump into' the *feelings-in-the-hat* game which just shows that the participants influence the efficacy of the content. The group was generally disciplined, attentive and focused.'

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Contextual variations related to delivery in the semi-rural community setting were reported in their potential to impact intervention fidelity. These contextual variations included: (1) *interruptions, disruptions and noise*, (2) *changes in venue* and (3) *space and environmental constraints of venues*. These observations mirror the researcher's notes as shared in Section 8.3.2 and confirmed the role of the environmental context in implementation fidelity in the current study.

(1) ***Interruptions, disruptions and noise*** were observed during programme delivery on all farm sites. Sessions were interrupted, for example: 'Session was initially interrupted by another child … other children from the farm occasionally interrupted … session was interrupted however facilitator handled this well.' *Disruptions* to sessions from *noise* outside venues were observed to impact session delivery: 'Location of session was adjacent to an office – noise and perhaps distracting, particularly during relax session, this could have been an issue," and "… noises in aftercare during relax – distracting – talking of aftercare facilitators specifically, packing of chairs, someone knocked on door at end of relax task.'

(2) Changes in venue were noted by observers who also noted facilitator competence in response, for example: 'Moved venue for today's session (to community hall) … different setting today: were in the aftercare,' and 'Facilitators were able to carry on as planned despite interruption from rain. Were quick-thinking, made another plan … there were many distractions. (The group) sat next to a class that was very noisy. (The session) moved outside, then moved inside because of rain. Noise inside."

(3) ***Space and environmental constraints*** of smaller and poorly maintained venues were noted: 'Lighting in venue was dark – how would this have affected the way they viewed the posters", "… space was very cramped", "I think it would have worked better in a venue with chairs because the children tend to lie down and become restless on the floor. (However, the lack of resources prevents / limits this)", and "The door drama (a door was semi-unhinged and threatening to fall over during the session) created some distraction and excitement, but participants focused again quite quickly.

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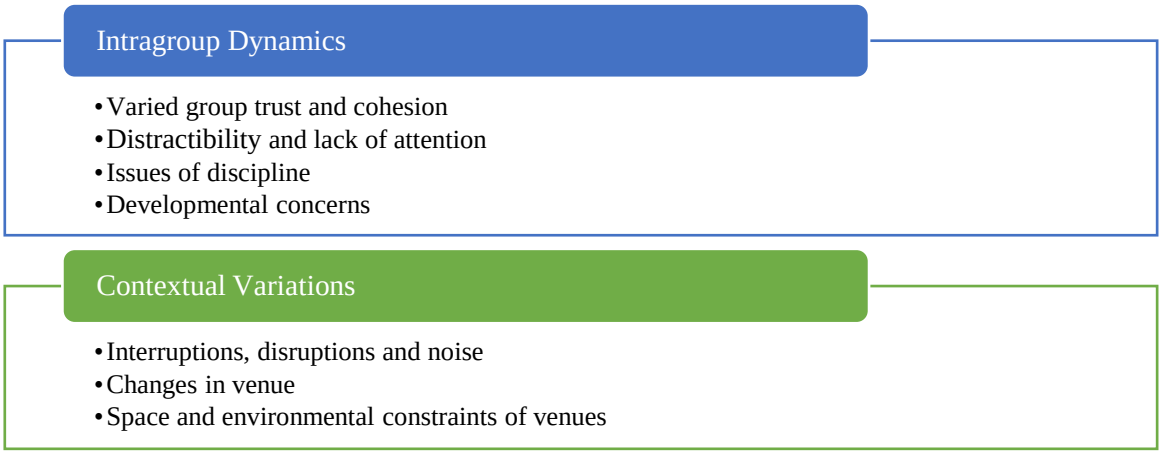

Figure 20. Summary of the observer reported intervention context.

8.4 Acceptability evaluation findings of the BRAVE Programme

Overall acceptability of the BRAVE programme was defined as *perceived affective attitude* (satisfaction and helpfulness) and *perceived effectiveness* (programme goals reached) is presented in this section. Acceptability was evaluated by participants in session-wise feedback as well as 3-month follow-up focus groups. Acceptability was evaluated by observers in session-wise observation forms.

8.4.1 Findings of participant reported acceptability of the BRAVE programme

8.4.1.1 *It was beautiful. Beautiful, because it was fun. It was very beautiful*.

(Participant session-wise rates of satisfaction and reasons for acceptability evaluation.)

Overall participants' responses were very positive, with 87 of the 89 (97.8%) completed session evaluation question responses in the 9-10-year age group (n = 11) and 79 of the 81 (97.5%) completed session evaluation responses in the 11-14-year age group (n = 10) indicating satisfaction. Participants stated that sessions were, for example: "nice", "very nice", "enjoyable", "good" or "successful" and "enjoyed it a lot to be part of the program".

Thematic analysis identified that participants attributed their **satisfaction** to the following specific aspects: (1) *the programme was fun*, (2) *the programme was educational*, (3) *core CBT-based knowledge and skills*, (4) *helped participants to overcome fears*, (5) *group participation, cohesion and rapport*, (6) *interactive activities*, (7) *rapport with the facilitator*, (8) *rewards* given during sessions, and (9) *value of the exposure tasks*.

Participants reportedly found the programme acceptable, because:

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(1) ***The programme was fun*** due to the playing of games and the use of humour to deliver core content, for example: "It was fun. We enjoyed laughing … my eyes watered from all the laughing," and "It was fun. We enjoyed playing the games."

(2) ***The programme was educational***, as illustrated by: "It was fun / nice. I learnt even more interesting things" and "… it was fun / nice – we learnt more things." However, participants reported on 3 occasions that sessions were not educational as in: "We talked in English – didn't really learn anything."

(3) ***Taught core CBT-based knowledge and skills***. Participants in the *younger age group (aged 9-10 years)* reported learning relaxation and planning skills as satisfactory most often: "Good. We learnt to relax," and "Fun, because we relaxed and thought of positive plans." This trend continued in the *older age group (aged 11-14 years)*, but satisfaction was associated with a greater variety of CBT-based core content and skills related to cognitive restructuring and behaviour modification activities, for example: "Good. It was nice to relax. The fear meter was interesting.", "Fun, the helpful and unhelpful thoughts. The bubble thing," and "Very nice – the good plans that I can think of."

(4) ***Helped overcome fears***, for example "it was good … to calm down and not to be scared of everything."

(5) ***Group participation, cohesion and rapport*** were related to satisfaction also supported that participants found peer support acceptable in the programme, for example: "It was nice when the four of us worked together. We helped each other if one got stuck" and "… by sharing and making good friends – you don't always have to keep your [13]coarseness / rawness to yourself – you talk it out with someone you can trust – like when you are scared or shy."

[13] After much consultation, the researcher included two English alternatives for the Afrikaans colloquial expression presented in this participant response. However, the researcher was unable to find a single word that fully depicted the intended meaning that is approximated and interpreted as: *your raw feelings, thoughts or behaviours that may not be accepabtle to others.* The Afrikaans expression that includes this word genereally refers to unacceptable behaviour that a person should change.

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(6) ***Interactive activities*** of the programme were satisfactory with participants stating for example that: "It was fun. We played games," and "It was lots of fun – when we drew on the stick figure and when we danced."

(7) ***Rapport with the facilitator*** was also reportedly important to satisfaction, for example: "I liked working with Facilitator 1," and, "It is nice to have Facilitator 1 here, because we can tell them because they won't tell someone else", "… it showed that the facilitator cared for us."

(8) ***Rewards*** of the programme were also rated positively in for example: "It was fun. We got stickers and sweets."

(9) ***Value of exposure tasks*** was related to enjoyment and benefit: "Fun, a lot of fun when we talked English in front of the people and when we relaxed", "… relieved when no one said anything negative or ugly … then I could first think positively and I then said to myself that the words that come out won't be taken back", and "… when I had to speak English, I said to myself that I CAN do it and then I threw my paper (notes) away and went to talk about it (the topic)".

The researcher tallied reasons given for acceptability according to the two age groups (the *younger 9-10-year age group* and the *older 11-14-year age group*), which revealed interesting trends (kindly refer to Figure 21 on page 187 for a visual illustration of the frequencies). Both age groups almost equally associated satisfaction with the BRAVE programme with it being fun and with the value of exposure tasks. Interestingly, the *younger 9-10-year age group* reported satisfaction related to the *interactive nature of the programme* activities and *rewards given* during sessions more frequently, while the *older 11-14-year age group* reported satisfaction related to the *educational nature* of the programme, *learning core CBT-based skills*, the programme *helping them overcome fears, the value of group participation, cohesion and rapport* and *rapport with the facilitator* more frequently.

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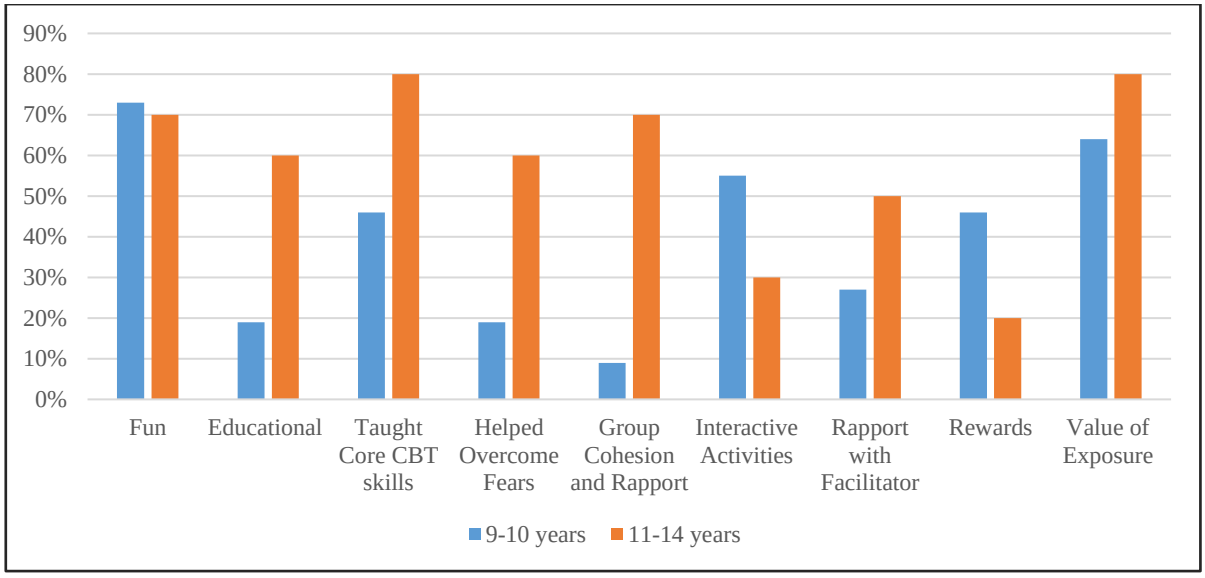

Figure 21. Participant session-wise reasons for acceptability according to age groups.

Note. The table above provides a visual presentation of the frequency of themed reports of programme elements that were considered satisfactory. The two age groups are presented differently to illustrate age differences in which aspects were considered more acceptable.

8.4.1.2 *She made an example of herself. Then I felt happy.*

(Participant 3-month post-intervention follow-up focus group reported rates of satisfaction and reasons for acceptability evaluations.)

Data from the 3-month follow-up post-intervention focus group evaluation of the BRAVE programme were utilised to evaluate retrospective participant reported satisfaction with the intervention. The researcher was interested in whether participants considered participation in the intervention favourably and specifically whether participants would report dissatisfaction with specific areas of the programme. Towards this end, the following questions were included to generate and guide discussion around acceptability (see Appendix Q for an outline of all included questions):

- What did you like most or least about the programme?
- What was most or least helpful in the programme?
- What did you learn from the programme?
- Do you think the programme should be changed? If so, how?
- What did you like / what did you not like about the workbooks?
- What did you like most or least about the facilitator?

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In response to ***what participants liked most or least*** about the programme, all 20 (100%) participants could relate at least one thing that they liked and 1 participant (5%) indicated dislike for the relaxation activity in "[I liked least] to relax … I thought that, if I closed my eyes, then the people wouldn't be there anymore. I didn't trust it. It got better the more I did it." Importantly, this particular participant indicated that relaxation was the most helpful part of the BRAVE programme.

In response to ***what was considered most or least helpful***, 19 participants (95%) could mention at least one thing that was helpful, 1 participant (5%) stated that he could not remember and 3 participants (15%) indicated something about the programme that was unhelpful, all of which included an interactive activity.

All 20 participants (100%) could relate at least one thing ***that they had learnt*** from the programme. 17 of the 20 participants (85%) indicated satisfaction with at least one aspect of the ***workbooks*** and 3 participants (15%) indicated one thing that they were dissatisfied with.

All 20 participants (100%) indicated at least one thing that they ***liked about the facilitator*** with no responses indicating dislike. 18 participants (90%) indicated at least one thing about the programme that should be changed. Figure 22 below offers a visual presentation of the frequencies.

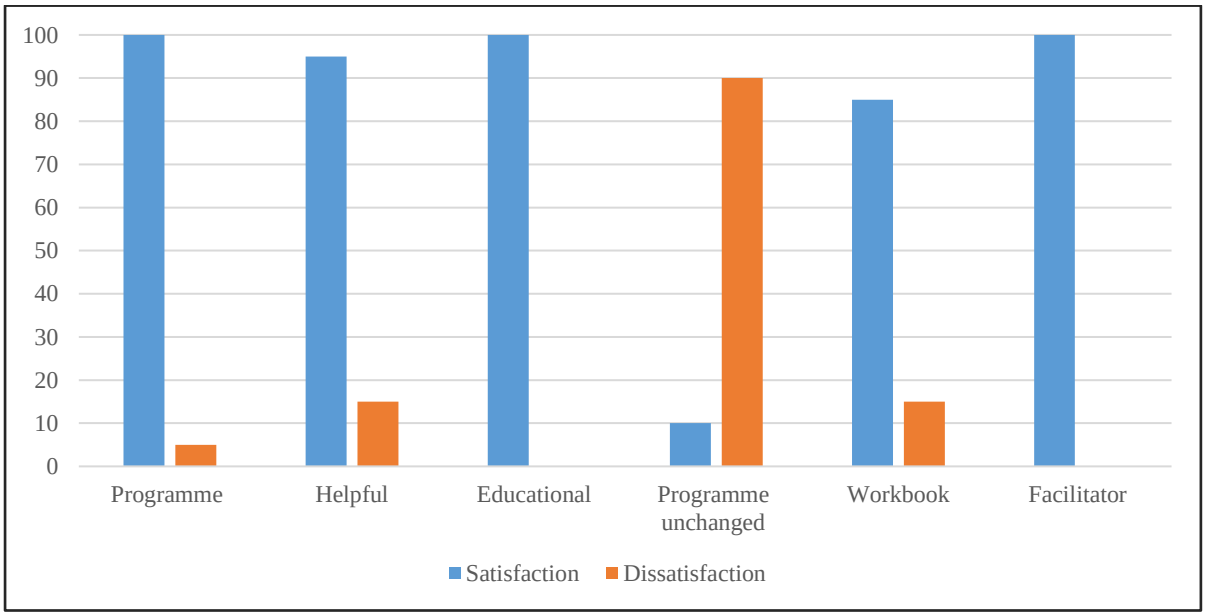

Figure 22. Participant 3-month post-intervention reports of satisfaction and dissatisfaction.

Note. This figure provides a visual presentation of the frequency of reports of satisfaction in response to questions asked in the 3-month post-intervention focus group sessions.

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Themes related to **acceptability** were identified from participants' responses to the first three questions in the 3-month post-intervention focus group sessions, *What did you like most or least about the programme, What was most or least helpful in the programme?* and *What did you learn from the programme?*

At 3-months post-intervention, both the younger age focus groups (9-10 years) and older age focus groups (11-14 years) indicated that the core CBT elements of the BRAVE programme were liked most and considered most helpful:

(1) ***The relaxation training***, for example: "[We liked] relax. We closed our eyes and learnt to relax … you can let your feelings go down."

(2) ***Planning and problem-solving skills*** training, for example: "[We liked] to learn about the positive plans."

(3) ***Learning*** **to** ***change negative thoughts***, for example: "[What helped the most was] burst that bubble … to think other things that will help you."

(4) ***Programme reward system***, for example: "[I liked] that we got sweets … to buy sweets with the stickers."

(5) ***Utility of the fear meter***, for example: "[I liked] the fear meter and relax. I learnt a way … you can calm down."

(6) ***Enjoyment of exposure***, for example: "To go talk at the office. It was nice. I enjoyed it to go there."

(7) ***Reduction in experienced fear***, for example: "I am not scared anymore to walk alone at night", and "[What helped the most was] not to be scared or shy."

The researcher considered responses in the younger and older age groups in the 3-month post-intervention focus group sessions separately and identified differences in reasons given for satisfaction with the BRAVE programme.

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Participants in the **younger age group (9-10 years***)* indicated satisfaction with the following elements of the BRAVE programme:

(1) ***Interest and care shown by facilitators***, for example: *"*The people helped us – they were friendly … it was nice that they asked us questions … It is nice when someone asks you questions to get to know you."

(2) ***Homework tasks***, for example: "The homework was nice. There were questions. It was something to do. If your sister for example bothers you, you can say to her you have homework to do and then she doesn't bother you anymore."

(3) ***Helpfulness of the posters*** during delivery, for example: *"*[Helped the most]: To read the card – the posters".

Participants in the **older age group (11-14 years)** indicated the following satisfaction with the following elements of the BRAVE programme:

(1) ***Talking about fears***, for example: "I liked to talk about scared things."

(2) ***Stop and think*** thought changing method, for example: "I liked to stop and think."

(3) ***Learning from facilitator self-disclosure***, for example: *"*I liked making plans – like with Facilitator 1's spider – to make a plan to get the spider, because then next time you know what you must do."

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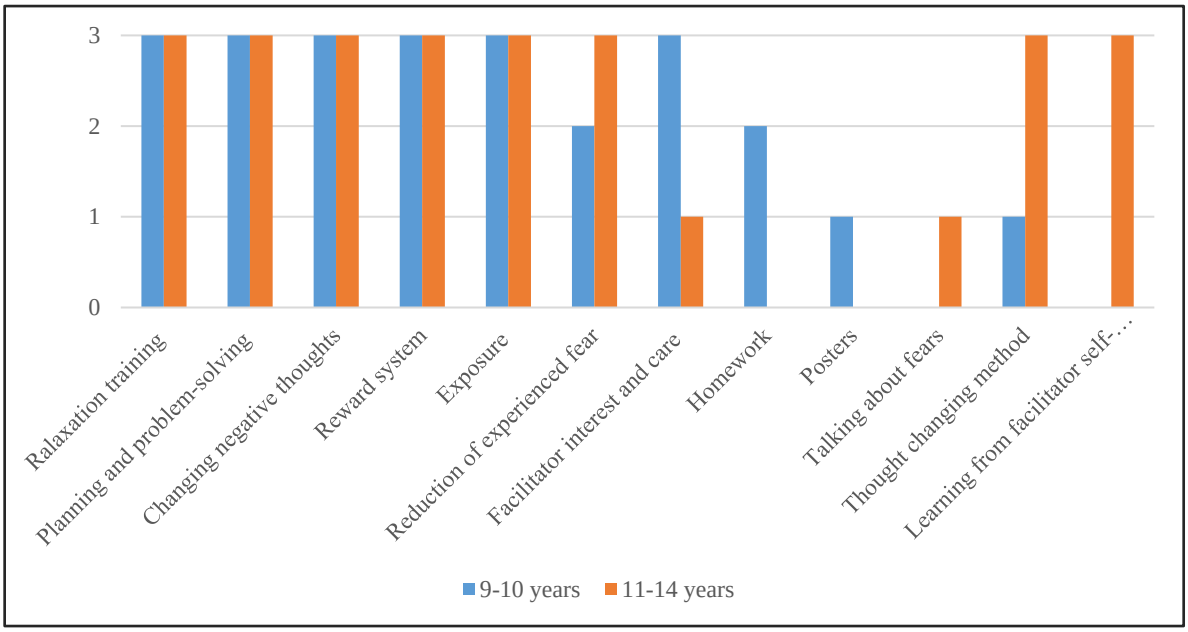

Figure 23. Participant 3-month post-intervention acceptability evaluation according to age.

Note. The table above provides a visual presentation of the frequency of focus group reports of satisfaction in response to what was liked, beneficial and educational in the BRAVE programme at 3-months post-intervention according to age groups.

In response to the question: ***Do you think the programme should be changed? If so, how?,*** 18 of the 20 participants indicated that at least one thing should be changed. Amongst those to indicate the need for modification of the programme, the following suggestions were made:

(1) ***some wanted more reading, others less***,

(2) ***more relaxation and more detailed visualisation*** during relaxation activities,

(3) ***more exposure activities***,

(4) ***more sessions***,

(5) ***more rewards*** and that the intervention should

(6) ***not be presented over holidays***.

It must be noted that only one participant suggested that the intervention should not be delivered during a holiday. This is an important critique, albeit made by only one participant, and may need to be considered for exploration of acceptability before any larger scale implementation.

In response to the question: ***What did you like / what did you not like about the workbooks?***, participants offered limited responses. 17 of the 20 participants indicated that

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they liked:

(1) ***the stories of Dapper Danica and Dapper Donovan***, to be able to

(2) ***to write and draw in their workbooks***,

(3) ***to write about how they were feeling and how their day was***,

(4) ***the colourful workbooks***,

(**5*) the information that they could read about being BRAVE***, including *the fear meter*, *the picture of the body with the feelings*, and *the pictures of the robot and the spring*.

Some participants *disliked* the ***stick figures pictures*** and stated that they "don't look like us. People don't look like that," one participant did not like the homework and another felt that there were too few pictures.

In response to the question, ***What did you like most or least about the facilitator?***, all 20 participants were positive and reported satisfaction with the following facilitator elements:

(1) ***Self-disclosure*** of the facilitator's fear of spiders was considered very positive with participants reportedly enjoying assisting the facilitator with making plans: "the facilitator told us about her fear of the spider … we had to help her make plans … like put it in a jar."

(2) ***Relatable***: "she made an example of herself, then I felt happy," and also "she was scared of a spider. She was honest about that. Some people will say they are not scared, but then they are."

(3) ***Humorous***: "she was funny … then we laughed, laughing is good medicine. My whole day then felt better when I had laughed."

(4) ***Friendly, polite and respectful***: "I liked her manners", "she had respect for us" and "she had discipline over us and herself."

(5) ***Child-friendly approach***: "she knows how to work with children. She knows our level."

(6) ***Kind and caring***: "She doesn't hit us … she was soft with us" … "it showed she cared about us" and "she was helpful".

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Kindly view a visual presentation of the participant reported acceptability of the facilitator in Figure 24 below.

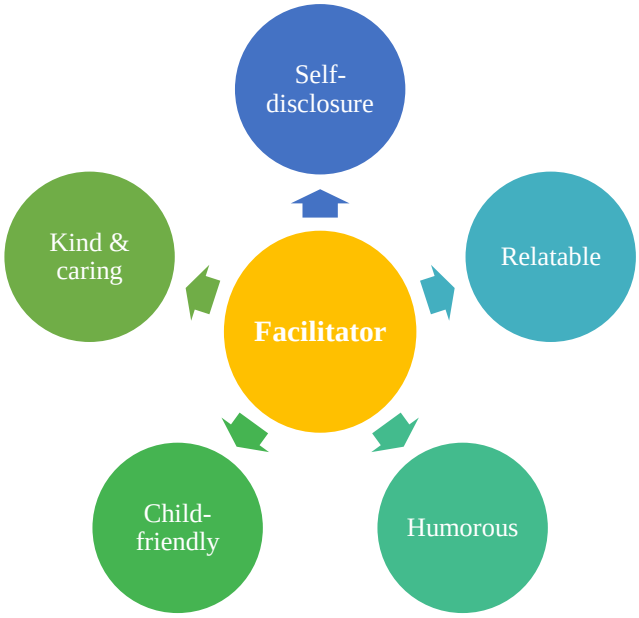

Figure 24. Visual representation of participant 3-month post-intervention acceptability evaluation of the BRAVE programme facilitator.

8.4.2 Participant and programme implementation observer reported acceptability of contextually adapted content of the BRAVE programme

The researcher was particularly interested in exploring whether there were spontaneous reports related to the acceptability of contextually adapted content of the BRAVE programme. This section offers findings from participant session-wise and 3-month post-intervention follow-up data and programme implementation observer session-wise data.

Findings revealed **contextually adapted content considered satisfactory**, the: **(**1) *Dapper Donovan and Dapper Danica narratives*, (2) *fear meter*, (3) *burst-that-negative - thought-bubble* cognitive restructuring method, (4) [14]*Ek is Dapper* programme name and acronym, and the (5) *I CAN choose* plan.

[14] The programme was named *Ek is Dapper* in Afrikaans, which translates as *I am Brave* in English. Within this dissertation, the programme is named the BRAVE programme for ease of reference.

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(1) *Dapper Donovan* and *Dapper Danica narratives* were considered favourably and helpful by *participants* in their session-wise and 3-month post-intervention follow up responses with acceptability reported by all children. Supporting examples are: "Donovan liked to summersault. I also like doing things like that," "Donovan helped me," and "There where Danica thought negatively about herself. I didn't like that. She must think positively. I changed that about myself." *Programme implementation observers* confirmed their acceptance of the *Dapper Donovan* narrative in for example: "The children responded best to the Dapper Donovan story", but the *Dapper Danica* narrative garnered less observer support with questions of relatability: "I don't think the children in this context can really relate to Danica's prize ..."

[15]**(2) *Fear meter*** was consistently reported as one of the most satisfactory and helpful element of the programme as illustrated in *participant* responses like: "I like the fear meter - 0 to 10. I like it because if you are scared of something, then you can measure how scared you are." *Programme implementation observer* responses included for example: "[what stood out the most] is the suitability of the fear meter … applying the fear meter to their fears or shyness."

(3) *Burst-that-negative-thought-bubble* cognitive restructuring activity was considered helpful by *the older age group (11-14 years)*, "it helps to get negative things out of your brain – you burst the negative thought bubble," but not fully helpful by *programme implementation observers* who questioned its complexity and developmental suitability for the younger age group (9-10 years): "I'm not sure that the younger children really understand this".

(4) *Ek is DAPPER* programme name and acronym were considered acceptable as illustrated in the following *participant* response: "We learnt about the *Ek is Dapper* (BRAVE) program – to make positive plans. DAPPER helped us to relax our bodies. It makes me feel better," and a *programme implementation observer* response: "They can remember the DAPPER … they understand the point of the DAPPER and can apply it".

[15] The *fear meter* was adapted from Stallard's (2005) 'feelings thermometer' in his *Think Good, Feel Good* CBT workbook.

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(5) *I CAN choose* plan was considered satisfactory and beneficial as illustrated in the following *participant* responses: "I have learnt I can CHOOSE what I feel I can do … to try things I am scared of", "[I liked] the I CAN choose plan. I CAN choose between negative and positive thoughts." *Programme implementation observer* responses in earlier sessions indicated dissatisfaction with the complexity of the *I CAN choose* plan, "The CAN plan. It is a lot of detail to be covered … I don't think children can learn all of this information – think of simplifying" (Session 2 observation). This, however changed consistently with satisfaction indicated in later sessions, "Using the CAN plan adds structure to the events leading up to the event of exposure" (Session 5 observation), and "Children understand and the revision (of the *I CAN choose* plan) was really good. Remembered CAN, KIES and DAPPER acronyms. Quite impressive." (Session 8 observation).

Figure 25 below offers a visual representation of frequencies of participant session-wise and 3-month post-intervention, and programme implementation observer session-wise reports of satisfaction with the content discussed in this section.

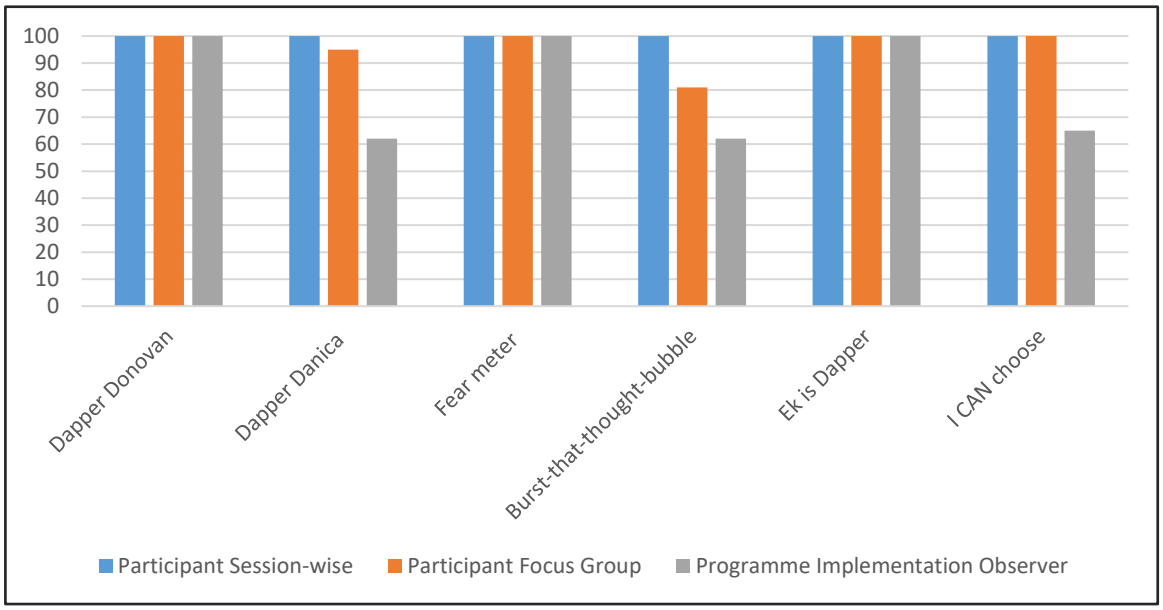

Figure 25. Participant and programme implementation observer frequencies of acceptability of contextually adapted BRAVE programme content.

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8.4.3 Programme implementation observer reported acceptability of the BRAVE programme.

During each session, two independent observers each completed a qualitative session evaluation form (based on Visagie, 2016): Qualitative Form 2: Session-wise programme implementation observation form, Appendix C). A total of 192 programme implementation observation forms were completed which contained questions on session content and delivery process elements:

- What part / aspect of the session content or delivery process stood out the most?
- What part of the session content or delivery process did participants respond to best?
- What aspect relating to the session content / delivery process may be improved?
- Kindly state any additional comments.

Overall, observers reported satisfaction with the BRAVE programme content and delivery processes which included positive remarks indicating satisfaction with at least one session content and one session delivery process component in all 192 observer responses. The researcher presents findings of observer satisfaction and dissatisfaction with session content and delivery process elements, as well as observer suggested improvements to enhance acceptability of the programme.

8.4.3.1 Programme implementation observer acceptability of the BRAVE programme content

Programme implementation observers related acceptability of content in terms of the: (1) *accessibility of session content*, (2) *observed positive participant responses* specific BRAVE *programme* content and, (3) *successful application* of psychoeducational content.

(1) ***Accessibility of session content*** was related by programme implementation observers to ***satisfactory levels of understanding***, for example: “It looked as though the penny dropped during this session, the content was understood and grasped by all the participants.” However, observers indicated in some sessions that content may be ***too complex for assimilation*** by the younger age group (9-10 years), for example: “I’m not sure if the level of training of today’s session was too high for the participants …” (observation of 9-10 year age

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group session) and suggested the simplification of content for use with this age group, particularly content in Session 3 that focused on cognitive restructuring skills and Session 4 that focused on behavioural modification skills.

Some observers reported ***content-heavy psychoeducation sessions*** and expressed concern regarding participants' ability to cope with such a large amount of information, for example: "It seems like an overload of information". However, concerns were consistently alleviated when exposure sessions were implemented, and observers reported that the ***protocol repetition, revision and practical application*** of psychoeducational content had resulted in ***satisfactory participant assimilation***, for example: "Even though the first four sessions felt extremely full in terms of content, the lessons seem to have stuck. The participants remember almost everything."

(2) ***Observed positive participant responses*** accounted for programme implementation observers' acceptability evaluation of the BRAVE programme. Satisfaction was related to content delivered by means of ***interactive activities*** that were enjoyed by the participants, increased group energy and effectively delivered content, for example: "The physical exercise of standing on 1 or 2 legs for the helpful and unhelpful thoughts worked extremely well", "This physical exercise of crumpling up plans that have negative consequences worked very well", and "What stood out most was using activities to reinforce content."

Observers reported that the ***relatability*** of the BRAVE programme within the new context was due to ***contextually relatable and child-friendly content***. The *Dapper Donovan* and *Dapper Danica* narratives, for example, were considered relatable and helpful by all observers and were often observed as the content to which participants responded best, for example: "The *Dapper Donovan* story – the children responded very well to this", "Donovan made an impact on the participants … his story provides a good landscape from which to explain / demonstrate the skills," and "Dapper Danica. The children listened very attentively. The Donovan and Danica stories obviously resonate very well with them." Additionally, the ***facilitator self-disclosure script*** was also considered relatable, helpful and engaging, for example: "The children responded best to the story of the spider", "Participants actively engaged in the story about how to solve the facilitator's problem. The children liked helping the facilitator think of plans for the situation that made her scared." Observers rated programme content favourably due to observed *successful reduction of anxiety*, for example: "The exposure was successful at reducing anxiety each time".

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(3) *Successful application of psychoeducational content* in ***exposure*** accounted for programme implementation observers' acceptability evaluation of the BRAVE programme, for example: "This session was an amalgamation of all the skills that were taught … into a practical example, explaining to the group how the concepts and skills relate to real life – this works very well" and "The children recognised and understood the importance of practising something until it becomes easier and bursting unhelpful thought bubbles."
Kindly refer to Figure 26 on page 198.

An important observation spoke to the impact that session content had on ***empowering participants*** to make changes and one of the core context-specific messages of personal choice in response to experiences:

> *All grasped the concepts and goals of this session (to make new plans). It was interesting to watch this session as most (participants) thought they had only one plan (mainly the easiest and least helpful plan) … that they had options, this … introduced to them a personal sense of agency for the first time.*

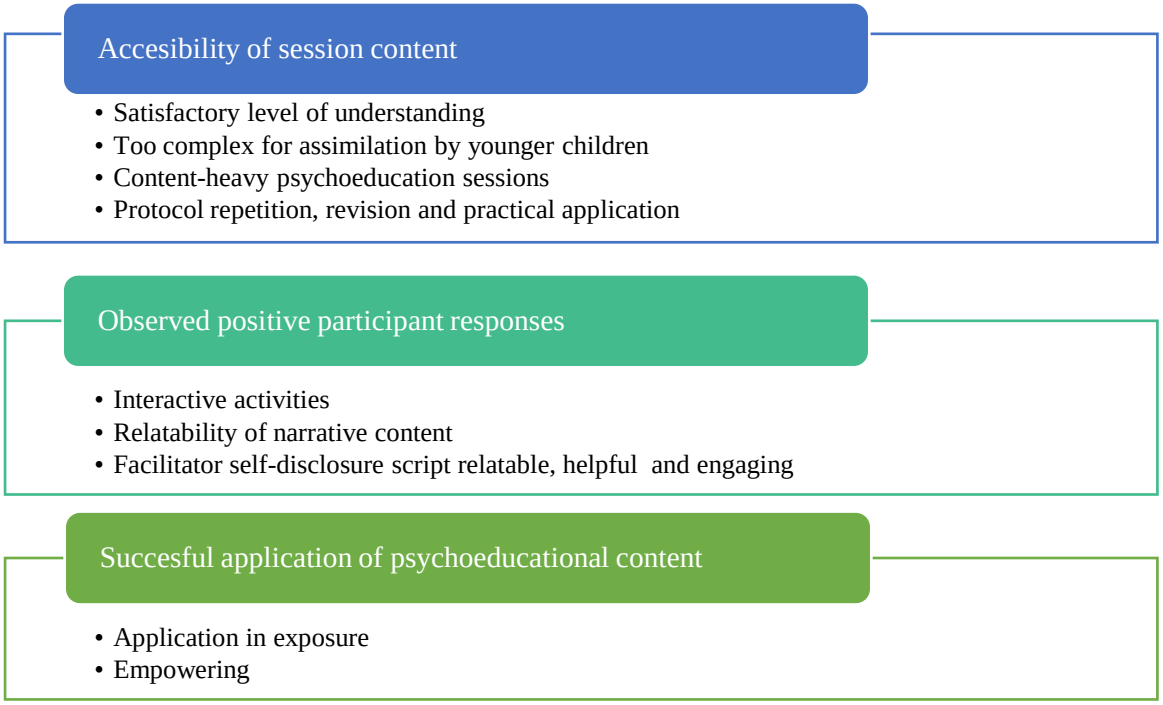

Figure 26. Programme implementation observer acceptability evaluation of the BRAVE programme content.

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8.4.3.2 Programme implementation observer acceptability of the BRAVE programme delivery processes

Section 8.3.3 provided an in-depth analysis of the programme implementation observations of the delivery processes of the BRAVE programme. In this section, the researcher briefly refers to programme implementation processes that observers also considered acceptable. Acceptability of the BRAVE programme implementation processes was related to:

(1) ***Flexibility in delive****ry* was considered important to satisfaction with the BRAVE programme, as illustrated by: "The delivery was fantastic and flexible. The facilitator came across as warm and approachable."

(2) ***Storytelling in delivering content*** was rated favourably as illustrated by: "The children respond well to the funny stories (relatable, like falling, tripping, etc)," because this considered that children may not always be able to identify feelings in themselves, for example: "They respond better to identifying emotions of others and in situations than in identifying them within themselves."

(3) ***Management of discipline by means of a group contract*** was also reportedly satisfactory, as in: "At times when the children became rowdy, the facilitator quickly brought the children back into focus without getting irritated … when things got out of hand, the facilitator pointed back to the *We understand each other* contract."

(4) ***The importance of using colloquial language*** in delivering content to enhance acceptability was underscored by: "It's important to use the language and sayings of the participants – as the facilitator did".

(5) The use of ***humour in delivery of content*** was considered acceptable and satisfactory, for example: "The role play by the (facilitators) was fantastic and the participants thoroughly enjoyed it. The laughter and giggles helped the participants to open up and add a few comments to the session." Kindly refer to Figure 27 on page 200.

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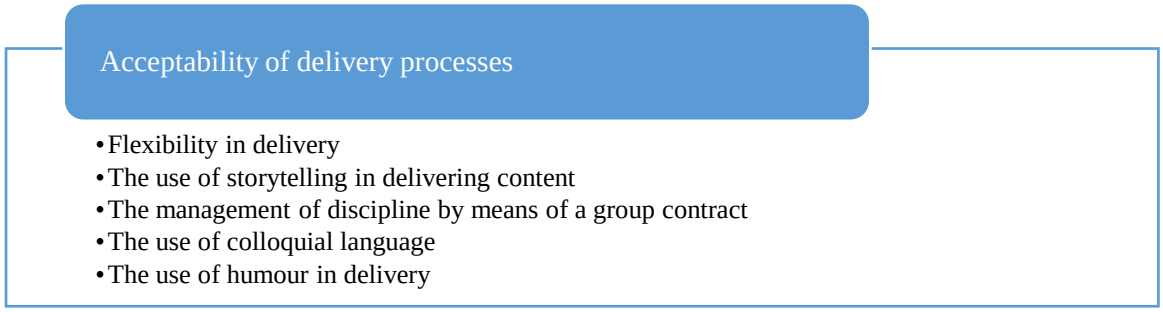

Figure 27. Programme implementation observer acceptability evaluation of the BRAVE programme delivery processes.

8.5 Taking the risk: constructing a narrative of participant experiences

During the implementation and evaluation of the BRAVE programme, the researcher became aware of a number of children's narratives of the personal impact of the BRAVE programme. During data analysis, a number of these narratives were constructed from a number of vantage points: researcher field notes, discussions with the facilitator of the programme and outcome evaluations, including recorded anxiety scores, participant feedback and observational data, which together created striking insights into the potential positive outcome and change resulting from participation in the programme. The researcher decided to conclude the presentation of the findings of the current research project with one vignette that attempts to capture the researcher's understanding of the journeys of the participants as they participated in the BRAVE programme.

8.5.1 Vignette: *The story of Jane who found her voice**

Jane was a 10-year old participant who presented a high score on the SCAS self-report anxiety outcomes measure of 68. During the first five sessions of the BRAVE programme, programme implementation observers and facilitators noted that Jane was extremely quiet, and it was evident that sessions were problematic for her. She often was not present at the start of sessions, resulting in the researcher searching for her and on discovery, she would claim that she had been cooking noodles for herself at home and therefore did not come on time. The researcher assured her that withdrawal of participation would not be considered negatively and that she could do so at any given time. She opted to continue participation every time.

Also, during the first five sessions, which included four psychoeducational sessions

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and an imaginative exposure session, Jane would spontaneously get up and leave sessions without a word and facilitators would be informed by fellow participants that she had gone to the loo at home. During the imaginative exposure session, Jane left the session venue when content reached exposure to a feared situation but returned after a little while as had become her modus operandi and continued with the session. Observers noted their own frustration with the facilitators who did not ensure more discipline and allowed this daily disruption of sessions. The researcher and her facilitator had a suspicion that Jane's behaviour was related to her anxiety and agreed to continue their non-threatening acceptance of her mobility. Despite the initial expectation that she would not return to sessions, Jane would reappear every time as suddenly as she would leave and would sit quietly again in her spot without a word.

During the 6th session, participants engaged in a pre-determined public speaking exposure task. The first in vivo exposure in this session entailed the group working together. Jane wrote her little speech and delivered it well in her group even though she was visibly anxious. This was also the first session that Jane did not disappear home for a visit to the loo, with an observer indicating in Session 7 that "Jane used to leave to go to the bathroom every session. She hasn't done so for the past two days." The facilitators felt that perhaps the interactive nature of the exposure task had kept her attention and made the session more acceptable as she opted to continue participation in the exposure sessions. During Session 7, participants ventured outside the safety of the session venue and group and presented speeches to staff members of the NGO (aftercare teachers) in pairs. Observers noted that Jane was "very vocal in this session. Usually [she is] very quiet." Before implementing the exposure task, participants first practised in the safety of their paired group, whilst Facilitator 1 guided them with the application of skills learnt in the programme. Observers noted marked anxiety in Jane's demeanour: "Jane gets very anxious just before saying *I am Brave*. She covered her face while saying *brave*", but that she used the story of *Brave Donovan* to help her by saying: "I am now Donovan" with the facilitator encouraging her: "So, now you have to try!" Observers noted again that Jane covered her face with a piece of paper: "She was very anxious when she had to talk, but she kept a piece of paper in front of her face, stayed in the moment, then started talking" … "it was amazing how brave the participants were today. Even Jane, the most shy … spoke English in front of an audience." During the exposure process, Facilitator 1 had to assist her by standing next to her during her speech. Jane progressed in the exposure task by later indicating that she wanted to do her speech without the assistance of the facilitator when presenting it to the aftercare teachers. On that particular

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day, there were older aftercare children who were assisting the teachers. They indicated an interest in hearing the participants' speeches and, even though this raised anxiety levels, participants all indicated that they were willing to do so, including Jane. Jane entered the classroom alone without the facilitator and presented her speech. The observers noted that she had indicated that her anxiety level was on a one on the *fear meter* after the exposure. On completion of Jane's speech, her aftercare teacher was in tears, ran to the facilitators and embraced them. She was in awe of what she had just witnessed, as she indicated that she had been Jane's aftercare teacher for four years, and during that time Jane had never spoken in front of other people beyond a shy whisper. She was in a state of disbelief that Jane had on that day presented a speech to teachers and other children.

The gravity of the change in Jane was then evident to facilitators who reflected on her initial difficulty to remain in sessions. Observations in the 8th final session regarding Jane's exposure were: "amazing, marked improvement!". At the 3-month post-intervention follow-up focus group session, Jane was confident and actively engaged in the discussion. She was quite animated and even made jokes with everyone. She indicated that she had learnt a great deal from the programme and could recall significant detail of the psychoeducational information delivered. She indicated that the relaxation training had been the most helpful. During a chance meeting with her aftercare teacher after the 3-month post-intervention focus group session, her teacher stated that they had difficulty getting Jane to keep quiet in class and that the child had most definitely found her voice. Additionally, her score on the SCAS self-report anxiety outcomes measure had dropped to 43 on the 6-month follow-up evaluation.

8.6 Discussion

8.6.1 Discussion of the feasibility of the BRAVE programme

Recruitment, retention and attendance

It appears that the brief, intensive semi-rural farm-based implementation of the BRAVE programme by a trained, non-clinical facilitator was feasible. Consistent with the metanalytic finding suggestions by Öst and Ollendick (2017), *recruitment, retention and attendance* of the brief, intensive format of the BRAVE programme were successful. *Recruitment* was at an acceptable rate of 77.7% of possible participants' parents giving consent and 100% of their children assenting to participation. *Retention* rates were satisfactory with 91.3% of the participants who completed T1 assessments also completing T4 assessments. Acceptability issues related to interest and accessibility of programme content resulted in the attrition of the

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two participants who withdrew from the study.

Session attendance was good with 90.5% of participants attending 7 or more sessions and was slightly affected by *variable commitment to and understanding* of the research and intervention processes amongst some key community role players and families. All sessions that were not attended were due to role players and families planning alternative activities for children during session time slots. However, it must be noted that session attendance was also high due to the *support of most key role players* who assisted in locating children who had forgotten about sessions and in finding venues for session delivery, for example. The study findings indicated the importance for researchers to obtain full organisational organograms when working with complex NGOs to work closely with all key stakeholders towards ensuring that programme implementation is not compromised by competing organisational arrangements. Finding effective and *non-threatening ways of involving community members* may also enhance attendance as buy-in may ensure that children are encouraged to attend sessions. Future research attempts must consider *how best to enhance the role of key community stakeholders* in the South African context to enhance successful and meaningful implementation and evaluation of intervention programmes in semi-rural community settings.

However, it appears that the brief, intensive delivery of the BRAVE programme in community settings on semi-rural farm sites did not compromise recruitment, retention or session attendance. To the contrary, it appears that this *adaptation suitably overcame barriers* identified in *Phase 1* of this study.

Barriers, limitations and facilitators

The accessibility of an intervention when applied in real-world settings is vital to feasibility (Stallard & Buck, 2013). Considering how little is known regarding the delivery of CBT-based intervention programmes in semi-rural community settings in the South African context, it was important to explore barriers to feasible delivery during contextual adaptation in *Phase 1* of the current study. These barriers were consistent with those identified in the literature, for example time resources, accessibility (as in Tomlinson et al., 2016) and the inaccessibility of the location of services (as suggested by Mokitimi et al., 2018). Context-specific barriers related to travel, time, transport, demanding schedules and educational priorities were ameliorated by a brief, intensive delivery format during more flexible and less demanding periods of the year such as holidays. This is consistent with the suggestions by Elkins et al. (2007) that holiday camp-like delivery is highly compatible with children, Santucci et al. (2009) that brief, intensive delivery formats may resolve potential logistical,

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geographical and time barriers of traditional formats, and Whiteside et al. (2008) that programmes of this nature may be more accessible to rural children. Thus, the *benefits of presenting the brief, intensive* BRAVE prevention programme in this context appeared to outweigh the potential cost of delivering the programme in a more traditional format.

Even though adaptation removed the identified barriers to feasible delivery, *a number of limitations* were identified. In line with findings of other studies related to the delivery of interventions in community contexts, such as the school-based delivery described by Langley, Nadeem, Kataoka, Stein and Jaycox (2010), limitations included *environmental constraints* (noise, disruptions, interruptions and venue changes) and issues with *programme implementation support* and community buy-in. However, the identified limitations were well-balanced by the *facilitative role of community setting implementation* that was familiar to the participants, where participants were easily accessible and where community members could offer support in ensuring attendance. When interventions are *delivered close to home* in disadvantaged, semi-rural contexts, it seems access barriers are reduced as children can be located and reminded of sessions, and session attendance places no time or financial costs on families. Although greater community and NGO buy-in and support will further reduce access barriers (Langley et al., 2010), satisfactory support in the semi-rural community farm setting of the current study was demonstrated by the fact that, despite limitations, 47 of the 48 sessions were implemented as according to schedule.

Intervention implementation fidelity

Implementation fidelity (or integrity) is increasingly considered important in the feasibility evaluation of intervention programmes (Bjaastad et al., 2016; Breitenstein et al., 2010; Weck, Grikscheit, Jakob, Höfling, & Stangier, 2015). Intervention programme implementation fidelity is affected by *adherence, competence and context* (Breitenstein et al., 2010) and was used as a framework to evaluate the feasibility of the BRAVE programme delivery by a trained facilitator. The *relative importance of adherence and competence* in implementation fidelity evaluation is not yet clear. Bjaastad et al. (2016) argue that a highly adherent facilitator does not imply competent delivery that requires flexibility and the ability to foster rapport with participants. McLeod et al. (2018) argue that competence is central to the feasible delivery of interventions. Weck et al. (2015) suggest that alliance between the facilitator and participants may be associated with increased adherence and competence in delivery.

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In the current study *adherence* was considered good with 93.98% of session content delivered and the satisfactory implementation of prescribed protocol behaviours (kindly refer to Figure 18 on page 178 for examples). *Competence* in delivery was rated positively by programme implementation observers who provided evidence of *skilfulness*, *quality of communication* and *responsiveness* in delivery (kindly refer to Figure 19 on page 181 for an outline). Facilitator skilfulness was associated with flexibility, checking for participant understanding, effective group management and delivery of content in context. Clear, simple and child-friendly communication, and responsiveness were noted elements of facilitator competence in the delivery of the BRAVE programme. *Concerns* regarding fidelity were raised and related mostly to *deviation from protocol* (adherence), *varying quality of communication* and *time-management* concerns (competence), and to the difficulties and *challenges of the delivery context*.

Context affects the feasibility of programme implementation as organisational, personal, contextual and cultural elements may affect delivering (Kendal, Callery, & Keely, 2011). Contextual elements noted to affect delivery included disruptions, interruptions, venue changes, and participant attention, energy and discipline. These contextual challenges, associated with programme delivery in real-world contexts, called for *facilitator skill* (as suggested by Kendall et al., 1998) in *balancing flexibility with fidelity* to respond to the immediate requirements within the session (Beidas et al., 2010). Smith et al. (2019) suggest that *training and frequent supervision* are vital to competent programme delivery and towards this end, 70 hours of training and supervision were offered during programme implementation.

As argued by Cooper et al. (2017), the competence of a facilitator relates to their ability to achieve the desired outcomes of the programme, which is a complex component of intervention feasibility to assess. Van Doorn et al. (2017) for example noted the lack of evidence in support of the superiority of strict adherence to protocols during delivery, and it is argued that skill in programme delivery (Kendall et al., 1998), individualising programme delivery (Truijdens et al., 2018), and building alliance (suggested by Weck et al., 2015) are as important as adherence to the programme protocol. The implementation of the BRAVE programme in a semi-rural community setting posed *very different challenges* to those found in more controlled research settings. The current study contributed to the under-researched field of community-based intervention delivery in the South African context from which *practical suggestions* to enhance feasibility can be made:

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- Ensure full buy-in by from key stakeholders by ensuring that they are involved in and understanding of the requirements of effective delivery.
- Implement ongoing communication regarding the importance of both the research process and programme delivery to key community stakeholders.
- Include key stakeholders in training of programme components, implementation and evaluation to garner more informed support of the delivery.
- Offer facilitator training in practical, context-specific strategies to enhance fidelity in flexible delivery.

Data collection in the semi-rural farming context of the current study presented challenges, such as *lacking venues, privacy and variable literacy*. However, feasibility was maintained by means of creative, flexible problem-solving strategies, such as collecting data in cars, under trees and in gardens, for example. Literacy was addressed by the provision of trained data collectors to assist in the standardised, individual completion of outcomes measures. The feasibility of this approach in a large-scale study is uncertain. All participants and their parents / guardians completed all outcomes measures which points to the feasibility of such programme evaluation methods, at least on a smaller scale.

Importantly, this feasibility study *makes a case for the delivery of interventions in semi-rural farming community settings in a South African context*. It has highlighted the potential value of context-based adaptations such as brief, intensive formats that cater to the logistical and practical needs of the community setting (as suggested by Bekker, et al., 2017; Elkins et al., 2011; Storch et al., 2007), and the application of flexibility in response to unexpected challenges in developing feasible responses to the need for intervention.

8.6.2 Discussion of the acceptability of the BRAVE programme

The BRAVE programme was acceptable to participants and programme implementation observers. Overall, participants *rated the BRAVE programme favourably* with session-wise satisfaction indicated by 97.8% of the younger 9-10-year age group and 97.5% of the older 11-14-year age group. All participants indicated satisfaction with the BRAVE programme at 3-months post-intervention with only 5% indicating something that was disliked. Participants could also identify specific aspects of the BRAVE programme that were liked both in session-wise and 3-month post-intervention follow-up feedback.

Interestingly, acceptability findings indicated both similarities and differences

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between the younger 9-10-year age group and the older 11-14-year age group (kindly refer to Figure 21 on page 187). A brief look at elements reported in session-wise acceptability evaluations, indicated that both groups most frequently linked satisfaction to the *programme being fun*. The researcher compared the top 4 additional programme elements that were reportedly liked by the younger and older groups. The younger 9-10-year age group liked the exposure activities (64%), the interactive activities (55%), the rewards (46%) and that it taught them CBT-based knowledge and skills (46%) most often. The older 11-14 age group liked the exposure activities (80%), that it taught them CBT-based knowledge and skills (80%), the group participation and rapport (70%) and the fact that the programme helped them overcome fears (70%) most often.

From this comparison, it appears that CBT-based *psychoeducation and exposure were acceptable and satisfactory for both age groups*. Interestingly, there were also differences in components considered responsible for acceptability with *interactive activities and rewards* rated favourably more often by the younger 9-10 age and *group participation and rapport*, and *overcoming fears* rated favourably more often by the older 11-14 age group.

These findings fit nicely with the staged developmental theory by Erikson (1995) that proposes that children in the 9-10-year age group who are in the *Industry vs Inferiority* stage of development start to take pride in their accomplishments and work towards feelings of competence. The built-in reward system of the programme was suitably acceptable for this developmental stage as it related rewards to competence in the programme. The interactive learning activities also related to this stage where schooling and learning take precedence. Erikson's (1995) staged developmental theory also fits nicely with the 11-14-year age group's reported satisfaction with group participation and rapport, as becoming part of social groups and gaining their acceptance is fundamental in the *Identity vs Role Confusion* stage of development. Additionally, Piaget's (1972) cognitive theoretical framework potentially clarifies the age differences in acceptability evaluations, as according to the *Concrete Operational Period* to which the younger 9-10-year age group belongs, children are more capable of mental operations that are concrete, and thus may prefer the more concrete aspects of the BRAVE programme, such as interactive activities and tangible rewards. The older 11-14-year age group who are in the *Formal Operational Period* may have greater cognitive ability to respond reflexively to more abstract aspects, such as the process of participation and overcoming fears.

At 3-months post-intervention, overall acceptability was reported equally by both age groups with 100% of participants reporting *satisfaction with the various core*

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psychoeducation and exposure CBT elements of the BRAVE programme (kindly refer to Figure 23 on page 191). *Age differences* were also identified, with the 9-10-year age group indicating satisfaction with facilitator interest and care, homework and posters more frequently, which is again consistent with Erikson's (1995) *Industry vs Inferiority* stage in which teachers take a leading role and the focus is on learning activities. The 11-14 age group reported satisfaction with cognitive restructuring (the thought-changing method) and learning from facilitator self-disclosure more frequently, which also is consistent with Erikson's (1995) *Identity vs Role Confusion* stage in which the social aspect of identification with the programme facilitator may link to the focus on social contexts for development. The satisfaction of the older group with learning cognitive restructuring skills is also consistent with the suggestion by Pico-Alfonso et al. (2006) that children in Piaget's *Formal Operational Stage* are more prone to negative thoughts associated with anxiety, potentially as a result of their enhanced reflexive ability and with Graham's (2013) proposal that cognitive restructuring in CBT may be more suitable to children who have reached the *Formal Operational Period* of development.

Although focus group data revealed satisfaction with the BRAVE programme in terms of liking, helpfulness and informativeness, the evaluation of the facilitator yielded interesting acceptability findings. Facilitator acceptability was related to: self-disclosure, relatability, kindness and caring, humour and child-friendliness in delivery (kindly refer to Figure 24 on page 193 for a visual). Reports of satisfaction with facilitator self-disclosure are consistent with Bandura's (1977) argument for the role of modelling during learning as this was a component of the BRAVE programme intended to serve as positive modelling in *unlearning* anxious responses (Ollendick & King, 1998). It also ties in with Bandura's (1997) emphasis on the importance of the *zone of proximal development* wherein the social interaction between the facilitator (more competent adult) and the child should result in mastery over (in the current study: CBT-based coping) skills. Participant focus on liked facilitator characteristics is also in line with suggestions that rapport and alliance are important in CBT delivery to children (Stallard, 2010), that a strong bond with the facilitator may improve outcomes (Cummings et al., 2013), and that a collaborative, empathetic relationship that fosters self-efficacy may enhance acceptability and impact of CBT-based programmes (Stallard, 2002).

Both participants and programme implementation observers indicated *acceptability of surface structure level adaptations* to the programme content, for example the inclusion of storytelling in the form of the contextually relevant *Dapper Donovan* and the *Dapper Danica*

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narratives, and child-friendly delivery processes such as the *fear meter* and the *burst-that-negative-thought-bubble* methods, amongst others. *Deep structure adaptations*, such as the formulation of the *I CAN choose* plan, were reportedly helpful and satisfactory. From these examples, it appears that the cross-cultural and developmental adaptations that resulted in the BRAVE programme and the adaptation of programme materials to include characters and scenarios, language and vocabulary, and pictures that were representative of the new priority population (as suggested by Davidson et al, 2013), the inclusion of child-friendly activities that took literacy levels into account (as suggested by Davidson et al., 2013), and the formulation of developmentally sensitive approaches to delivery (as suggested by Nelson and Tusaie, 2011; Stallard, 2005) resulted in acceptability of the contextually adapted elements of the BRAVE programme.

Programme implementation observers offered important insights into the acceptability of both session content and delivery process elements of the BRAVE programme. Acceptability from this vantage point focused a great deal on *facilitator actions* that were conducive to the development of *a trusting and facilitative environment* and *content* that was *accessible and relatable*. Programme implementation observers also indicated content and delivery processes that *required additional adaptations* for future applications, such as potential issues in the *developmental suitability of cognitive components* of the programme for children in the younger 9-10-year age group, consistent with concerns raised with regards to CBT for children by Suveg et al. (2009).

The acceptability findings of the current study speak to the *importance of contextual adaptations* that consider child-friendliness and developmental sensitivity as well as cross-cultural relevance in the trans-contextual application of intervention programmes. The BRAVE programme, it is argued here, has demonstrated that CBT-based programmes that are delivered in a way that appeals to children and takes their developmental needs and contexts into account are of value and should continue to be explored in the South African context.

8.6.3 Integrated discussion of the *Phase 2* feasibility and acceptability findings

Martinsen et al. (2016) highlight the value of evaluating the feasibility and acceptability of programmes in real life settings to determine their utility. According to Kistin and Silverstein (2015), pilot studies should focus on the identification of barriers and facilitators of dissemination and implementation, intervention fidelity and acceptability to identify areas for improvement.

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The feasibility and acceptability study presented in this chapter suggests that the selective, brief, intensive group CBT-based BRAVE prevention programme delivered in a semi-rural farm setting would *generate satisfactory recruitment, retention and attendance* rates and *overcome logistical barriers*. Practical limitations of programme implementation did not affect the feasibility of delivery, nor the participant acceptability of the BRAVE programme, and appeared to *constitute research-focused concerns of an outsiders' perspective rather than child- and context-focused strengths* in delivery on semi-rural farm-based settings. This tied in with the identification of context-specific facilitators of programme implementation, such as *community support, enhanced accessibility and reduced threat* of participation that strengthened the case for delivery in context and translated into encouraging reports of acceptability. Also, it ties in with the *observer identification of multiple negative contextual threats* to programme implementation fidelity in contrast to the *overwhelmingly positive feedback of acceptability from children* who offered not a single contextual limitation to meaningful participation in the BRAVE programme.

Furthermore, the delivery of the manualised programme by a *trained facilitator evidenced satisfactory fidelity and excellent acceptability*. The inclusion of a *facilitator script* for modelling and active participation in sessions, combined with humour and child-friendliness in delivery resulted in *facilitator rapport and alliance*, which arguably resulted in *enhanced competence* in the delivery of the BRAVE programme. This is in line with recent suggestions of the importance of facilitator alliance and competence in the feasible delivery of intervention programmes (Bjaastad et al., 2016; McLeod et al., 2018; Weck et al., 2015). Moreover, the *importance of facilitator flexibility and skill* to respond effectively to context-specific threats to protocol adherence were identified as key to the competent and thus feasible delivery of the CBT-based BRAVE programme in a real-world setting (in line with suggestions by Beidas et al., 2010).

The findings of this study also indicate the value of *contextually, culturally and developmentally informed programme adaptations* as evidenced by good session attendance that was not affected by participant motivation or interest but rather competing organisational or familial demands. The contextually adapted BRAVE programme content was both accessible and relatable and the delivery processes were fun, responsive and engaging. Also, the programme was able to achieve its goal of transmitting CBT-coping skills to children and was reportedly liked for its psychoeducation and exposure components (as also reported in Chapter 7). However, age differences were identified in acceptability evaluations and

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observers suggested simplification to enhance feasibility and acceptability of the cognitive component of the BRAVE programme for children in the younger 9-10-year age group.

In conclusion, the current study indicates *satisfactory feasibility and acceptability* of the BRAVE programme, has identified potential areas for improvement and has highlighted important *practical considerations* for the delivery of prevention interventions in community settings in the South African context. Importantly, the study has contributed to a *critical view of the interdependence of programme implementation feasibility and acceptability*.

8.7 Chapter summary

This chapter firstly offered operational definitions of feasibility and acceptability as they were applied in this study. This was followed by frameworks for the feasibility and acceptability programme evaluation of the current study. Findings illuminating multiple perspectives and views of the feasibility and acceptability of the BRAVE programme were presented, which were then contextualised and discussed with reference to relevant literature and theory. Chapter 9 concludes the current study with a summary of relevant findings, a discussion of the study's contributions and limitations, and recommendations for future research.

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CHAPTER 9: CONCLUSION, LIMITATIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH

This chapter presents the conclusion of the current study. The motivation and context of the study are firstly restated, followed by a full overview of the study aims and objectives, and a brief reference to the methodological approach. The chapter then summarises the main outcomes of *Phase 1*, the contextual adaptation study. The findings of *Phase 2*, the mixed methods preliminary effectiveness, feasibility and acceptability evaluation pilot study, are also summarised. This is followed by a discussion of the potential contributions of the study outcomes and findings. The challenges encountered during the research process are presented. A consideration of the limitations of the study is presented, followed by a discussion of the practical applications and implications. Finally, the researcher presents recommendations for future research and concludes the dissertation.

9.1 The why … motivation and context.

The current study stemmed from research that revealed the potential mental health plight of vulnerable children in South Africa (Burkhardt & Loxton, 2008; Burkhardt et al., 2012; Burkhardt et al., 2003; Cortina et al., 2013; Loxton, 2009; Zwemstra & Loxton, 2011). Vulnerability was defined as contextual to South Africa's socio-political history and current socio-economic climate that perpetuate significant inequalities also in the provision of mental health care (Das-Munshi et al., 2016). In this study, children most affected by poverty, limited access to services and remote living environments were considered vulnerable.

The children of farmworkers in the Western Cape were identified via consultation with key stakeholders and a previous study on their fear profiles that called for suitable interventions (Burnett, 2008). This choice was also based on consideration of their context-specific vulnerability to the development of mental health difficulties that would fail to receive attention due to the lack of financial, human and practical resources to provide care (Petersen et al., 2012). Of the few studies that had considered the mental health of children in the Western Cape, a number garnered preliminary evidence of the existence of anxiety problems (consistent with international trends) that were more pronounced amongst [16]black and coloured South African children from disadvantaged communities (Burkhardt & Loxton,

[16] Kindly refer to 2.2.1 for a discussion of culture and race as it is presented in the current study.

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2008; Burkhardt et al., 2012; Burkhardt et al., 2003; Mostert & Loxton, 2008; Muris et al., 2002). Ironically, despite the development of a number of policies to enable South African children to access their constitutional right to (mental) health (as explained in Kleintjies et al., 2013), they have not translated into the active, feasible provision of mental health services. Child anxiety problems with their notable prevalence rates in the South Africa context (Herman et al., 2009) arguably should enjoy a great deal of attention, particularly as it has been established that untreated symptoms likely develop into disorders with several associated, negative outcomes.

A few South African studies have explored the possibility of preventive CBT-based intervention programmes as a means of narrowing the ever-widening gap between need and delivery, with two studies as far as the researcher could identify, focusing on the established need for anxiety interventions amongst vulnerable children (by Loxton & Mostert, 2008 and Visagie, 2016) which have indicated promise (again consistent with international trends). Much research has been conducted internationally and has delivered a number of CBT-based options for child anxiety prevention interventions to choose from, potentially limiting the need for large-scale, lengthy and costly projects to develop interventions from scratch (Bekker et al., 2017; Elkins et al., 2011; Storch et al., 2007). However, there is still much work to be done, particularly with the growing understanding that the potential effectiveness of a mental health intervention is only as good as its relevance and sensitivity to new contexts. There is no easy fix in the transcultural or even trans-contextual application of effective mental health interventions, and of course this applies also to the inarguably important provision of anxiety prevention interventions to vulnerable children in semi-rural South African contexts.

Adaptation of mental health interventions is a key component in the response to the identified need for mental health care services and should be considerate of a number of important issues, for example the difference between cross-cultural and contextual adaptation (Castro-Camacho et al., 2018). A focus on context depoliticises the tendency to pathologize communities based on their SES and cultural context, and forces the researcher to consider adaptation with a wider lens and refocus on the (always changing) contextual systems that may enhance the fit of an intervention and its feasibility in new environs. Importantly, it also allows for the consideration of context-specific ecological systems relevant to the development of children that will also necessitate adaptations in interventions to offer vulnerable children opportunities to engage in preventive proximal processes, as defined in Bronfenbrenner's PPCT theory (Bronfenbrenner & Morris, 2006).

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It was the researcher's hope to engage in an authentic and conscious research approach that would optimise her ability to respond in a contextually sensitive manner to the very practical need for accessible, cost-effective mental health interventions for children in the South African context.

9.2 The what and the how … aims and objectives.

In short, the researcher attempted to develop a context-specific anxiety prevention intervention programme for vulnerable children of farmworkers in the Winelands of the Western Cape of South Africa, based on the research question:

Will an adapted CBT-based anxiety prevention intervention programme to lower elevated levels of anxiety symptoms in a vulnerable group of children from a disadvantaged background within a South African context be effective, feasible and acceptable?

Toward this end, the researcher focused on the following two broad aims within two phases:

- Broad aim of *Phase 1:*
  to adapt an effective CBT-based intervention programme contextually for a vulnerable group of South African children, using the organisational framework of Card et al. (2011);
- Broad aim of *Phase* 2:
  to pilot test (a) the preliminary effectiveness and (b) the feasibility and acceptability of the contextually adapted programme, using a mixed methods quasi-experimental time-series design.

Towards achieving the broad aim of *Phase 1*, the researcher responded to four primary objectives:

- the translation of content into context-specific, colloquial Afrikaans;
- the cross-cultural adaptation (CCA) of content and delivery processes;
- developmental consideration and child friendliness adaptations (DCA); and
- the consideration of environmental contexts relevant to adaptation.

As part of the contextual adaptation implemented in *Phase 1* of the current study, the researcher cross-culturally adapted (CCA) the study outcomes measure. Towards achieving this secondary aim, the researcher responded to two secondary objectives:

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- translation of the outcomes measures into Afrikaans; and
- the cross-cultural adaptation of the outcomes measures.

This process resulted in the contextually adapted, Afrikaans BRAVE programme: a brief, intensive, 8-session, group CBT-based anxiety prevention programme, and Afrikaans, cross-culturally adapted anxiety outcomes measures (the SCAS-C and SCAS-P measures).

Towards achieving the broad aim of *Phase 2*, the contextually adapted BRAVE programme was piloted in a community farm-based implementation and evaluated for preliminary effectiveness, feasibility and acceptability in a mixed-methods, quasi-experimental time-series design.

The mixed-methods preliminary effectiveness evaluation was guided by the following framework:

- a statistical evaluation of the reduction of elevated levels of anxiety symptoms over time (with an immediate and delayed intervention group), using the CCA outcomes measures of *Phase 1*;
- a qualitative evaluation of perceived effectiveness and benefit reported in 3-month post-intervention focus groups.

The qualitative feasibility evaluation was guided by the following framework:

- evaluation of recruitment, retention and attendance rates;
- researcher observed logistical barriers, practical limitations and facilitators of delivery;
- observer reported intervention implementation fidelity of the context-specific delivery of the BRAVE programme.

The qualitative acceptability evaluation was guided by the following framework:

- participant session-wise rates of satisfaction and reasons for acceptability evaluation;
- participant 3-month post-intervention follow-up reported rates of satisfaction and reasons for acceptability evaluations;
- participant and observer reported satisfaction with and appropriateness of CA content and activities;
- programme implementation observer reported acceptability evaluation.

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9.3 So, what have I found and why does it matter?

This section will present an abbreviated version of the outcomes of *Phase 1* and the findings of *Phase 2* of the current study.

9.3.1 Outcomes of *Phase 1*: the contextual adaptation of the intervention materials

The *Phase 1* contextual adaptation study resulted in two main outcomes: (1) the contextually adapted, brief, intensive group CBT-based anxiety prevention intervention, named the BRAVE programme (Afrikaans: *Ek is Dapper program)*, and (2) cross-culturally adapted, Afrikaans versions of the anxiety outcomes measures, the SCAS-C and SCAS-P.

The *contextual adaptation of the DUTCH prevention programme* (an adapted CBT-based prevention programme by Van Starrenburg et al., 2013) entailed seven steps (kindly refer to Figure 1 on page 60). The researcher selected and mobilised the DUTCH programme and its materials, developed an interpretive model of the programme, and identified core components and best practices considered responsible for its effectiveness. This was followed by the identification of contextual mismatches between the DUTCH programme and the new South African context. These mismatches were categorised as *deep structure* level mismatches in the model of the programme and *surface structure* level mismatches in content and delivery processes. Identified mismatches determined which adaptations were made to the programme model, content and delivery processes.

The *contextual adaptation* entailed the translation of the DUTCH programme into Afrikaans and extensive consultation with members of the priority population (farmworker children) to identify the mismatches outlined above. The identification of mismatches was guided by three main contextual adaptation objectives: 1) cross-cultural adaptation (socio-cultural and linguistic, for example), 2) developmental consideration and child-friendliness adaptation (observed cognitive ability and literacy, for example), and 3) adaptation in response to the environmental context (location, resources and accessibility, for example).

Examples of deep structure level adaptations to the DUTCH programme model

Adaptations in response to identified mismatches were made to the mid-term goals, characteristics of the priority population, and the inputs and outputs of the DUTCH programme model (kindly refer to Figure 4 on page 79 and Figure 5 on page 87 for visual presentations).

For example, the DUTCH programme model's *mid-term goal to reduce avoidance behaviour* was adapted as consultations with children from the priority population revealed

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context-specific exposure to high levels of violent crime and other realistic fears. Avoidance behaviour, in this context, may serve a safety function. The adaptation resulted in the mid-term goal to *reduce avoidance behaviour in response to unrealistic anxiety or fear*.

Adaptation to the *priority population* of the DUTCH programme was based on developmental and contextual considerations. Consultations with children from the priority population revealed that the 7-8-year age group was unable to assimilate the more abstract components of the programme, possibly due to scholastic and cognitive delays, a concern also raised by Suveg et al. (2009) who questioned the cognitive-linguistic readiness of some children for more complex components of CBT. Therefore, the priority population was adapted to the *exclusion of children under the age of 9 years*.

An example of adaptation of the DUTCH programme's *required input and output* was the decision to remove *parental involvement* and *parental provided rewards* from the programme protocol, due to context-specific financial and time constraints experienced by parents, lacking evidence in the literature in support of superior outcomes when parents are involved (Manassis et al., 2014) and concerns regarding the sensitivity of programmes that require parents with low SES to provide rewards (Edmunds et al., 2016).

***Examples of surface structure level adaptations to the DUTCH* programme**

On the surface structure level, adaptations were made to content themes, language and metaphors, intervention messages, intervention materials and activities, and the mode and location of delivery.

For example, *content themes adaptations* were made to fit with the *everyday experiences* of children who live on farms in the priority population, such as going to school on the back of a farm truck. *Intervention messages* were adapted with the aim of developing *self-efficacy and agency* in response to contextual difficulties, for example the Afrikaans title of the programme (translated: *I am Brave*) and the adaptation of the FEAR plan to the 'I CAN choose' plan (kindly refer to Figure 7 on page 90). *Language and metaphors* were adapted for *context-specificity* and included, for example the word 'shy' for symptoms of social anxiety, the addition of a colloquial word for fear (translated: 'scaredy') and the removal of the CAT metaphor. *Intervention materials and activities* were adapted according to developmental considerations and child-friendliness, and included for example: *more interactive components, less reliance on reading and writing*, the *simplification* of content, *scaffolding* of session delivery and increased *facilitator participation* and modelling.

Further adaptations to the programme model, content and delivery processes were

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required to *overcome logistical barriers* to delivery in the new location – farm sites (kindly refer to Figure 17 on page 176). This resulted in the formulation of the BRAVE programme, a *brief, 8-session prevention programme for intensive, group delivery* over a two-week period (Kindly refer to Table 12 in Appendix V for an outline of the BRAVE programme session titles, goals and examples of activities).

The *cross-cultural adaptation* of the anxiety outcome measures, the SCAS-C and SCAS-P, resulted in *Afrikaans, colloquially adapted items* and the inclusion of *simplified, colloquial descriptors* on the Likert scale options. Words and phrases in items that failed to accommodate culturally determined interpretations were reworked, for example items in the social anxiety subscale that used the word 'fear' were adapted to include both 'fear' and 'shyness' as it was discovered that social anxiety comprised the same symptomology but was never defined as 'fear'. Despite careful cross-cultural adaptation, items on the *panic and OCD subscales* continued to present response difficulties based on culturally and contextually determined interpretations, particularly on the parental anxiety outcomes measure. The researcher considered this limitation in her interpretation of the anxiety outcomes measure findings in *Phase 2*.

9.3.2 Outcomes of *Phase 2*: the preliminary effectiveness, feasibility and acceptability evaluation of the BRAVE programme.

The *Phase 2* pilot study evaluated the preliminary effectiveness, feasibility and acceptability of the BRAVE programme.

9.3.2.1 Statistical preliminary effectiveness findings

The preliminary effectiveness findings responded to two broad hypotheses. Firstly, it was hypothesised that there would be a significant reduction in anxiety scores for both the IIG and DIG post-intervention (at T2 for the IIG and T3 for the DIG) that would be maintained at 3- and 6- months postintervention for the IIG (at T3 and T4) and at 3-months post-intervention for the DIG (at T4). Secondly, it was hypothesised that there would be a significant difference between the IIG and the DIG only at T2 (post-intervention for the IIG and pre-intervention for the DIG).

The within-groups findings for the statistical sample as a whole (N = 21) demonstrated a significant decline in total anxiety scores on the SCAS-child measure over time (kindly to Table 14 on page 142 for raw scores and to Figure 12 on page 144). This finding indicated promise in terms of the expectation that participation in the BRAVE

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programme would result in a significant reduction of anxiety symptoms in the priority population. However, contrary to expectation, only the IIG (N = 11), yielded a significant effect for time and the DIG (N = 10) yielded a non-significant effect. The researcher considered Bonferonni post-hoc analyses and the pairwise comparisons indicated two interesting findings: 1) despite the overall non-significant decline of anxiety scores over time in the DIG, a significant decline in anxiety scores were yielded post-intervention and maintained at the 3-month post-intervention follow up with another significant decline; 2) even though the IIG did yield a significant decline of anxiety scores over time, contrary to expectation, the decline was not significant at post-intervention but only at 3-months and 6 months post-intervention. The researcher interpreted these findings with cautious optimism that they may point to a trend towards the significant reduction of anxiety scores after participation in the BRAVE programme. The researcher was interested in exploring whether gender or age group would shed light on the findings. When the researcher considered the effect of gender and age group on the overall findings, gender did not have a significant effect for time. In terms of age group, the BRAVE programme yielded significant results in the decline of anxiety scores in the older (11-14 year) age group over time with significant decline at T2, T3 and T4, but not in the younger (9-10 year) age group at any of the four time points. Therefore, even though significant effects were found for time, they were varied and inconsistent. Two preliminary conclusions may be tentatively drawn from the within groups findings. From the findings of the IIG and the DIG, it appears that a significant effect for time may only be demonstrated when 6-months postintervention data is available. This potential finding in on keeping with this of … of delayed intervention response in South African child populations. Secondly, it appeared that the BRAVE programme may be more suited to older children, consistent with the argument postulated by Essau et al. (2012a) that older children respond more to the cognitive elements of CBT-based programmes and therefore may present a delayed response to programmes as this skill may take longer to be acquired.

Between-groups effects were non-significant at all four time points, even at T2 (post-intervention for the IIG and pre-intervention for the DIG) which was contrary to the expected significant differences between the two groups. Importantly, factors such as the selection and cross-cultural appropriateness of outcome measures and the size and composition of the sample and sub-groups (IIG and DIG) may have influenced statistical outcomes. Further research is warranted with possibly a larger sample of children is required to establish whether: (1) a larger sample may yield more consistent statistical findings, (2) the decline in anxiety scores support traditional hypotheses of significance post-intervention as illustrated

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by findings in the DIG, or the trend for delayed significance in the decline of anxiety scores that has been identified in the South African context, (3) gender and age differences significantly affect the outcomes of the BRAVE programme.

Parental total anxiety scores (N = 21) demonstrated non-significant differences between the IIG and DIG and further analysis indicated no significant differences between groups at every time point; therefore no significant difference was found at T2 between the IIG (at post-intervention) and the DIG (at pre-intervention) (kindly refer to Table 14 on page 142 for raw scores and Figure 13 on page 147). Consistent with the child anxiety scores, a significant effect for time was yielded. Significance in the reduction of anxiety scores from pre-intervention to post-intervention was demonstrated along with a non-significant trend for the increase of anxiety scores at the final evaluation, T4 (6-months post-intervention for the IIG and 3-months post-intervention for the DIG). These parent anxiety score findings supported the expectation that participation in the BRAVE programme would result in a significant reduction of anxiety symptoms amongst children of farmworkers in the Western Cape of South Africa as observed by their parents. However, more research is merited as findings were unable to support significant between-groups effects and a trend for reporting increased (albeit non-significant) anxiety scores was identified.

As part of the contextual adaptation implemented in *Phase 1* of the current study, a number of challenges in the cross-cultural application of the SCAS-child and -parent anxiety measures were identified, particularly in the panic and OCD subscales. The implications of these findings will be discussed below. However, the researcher must note that analyses that excluded these two subscales did not alter the significance findings reported above; and they were therefore not considered confounds to the preliminary statistical effectiveness outcomes evaluation. However, the limitations of the cross-cultural application of a statistical outcomes measure should be noted, and the statistical findings of the current study must be interpreted with caution.

9.3.2.2 Perceived preliminary effectiveness findings

The aim of the qualitative, subjective evaluation was to explore the degree to which participants reported at 3-months follow-up, the utility of the intervention; the acquisition, retention and application of core CBT components; and the generalisation of coping skills.

Participants considered the BRAVE programme useful and associated the *utility* of the programme with the following outcomes: 1) the promotion of resilience and improved coping skills, 2) the improvement of communication and interpersonal relationships or

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support systems, and 3) a reduction of anxiety and improvement of affect. The exposure component of the programme was reportedly useful due to the following outcomes: 1) exposure was defined as rewarding, 2) it resulted in the reduction of anxiety symptoms and avoidance, 3) it increased coping skills, and 4) it was applied post-intervention to overcome fears.

In terms of the *acquisition* and *application* of core CBT-components, of the 21 participants, 100% reported that they had learnt about emotions, 87% reported that they had learnt about cognitions and 96% reported that they had learnt about behaviours. Additionally, 96% reported that they had learnt emotive management skills, 96% reported that they have learnt cognitive restructuring skills, and 74% reported that they had learnt behaviour modification skills (kindly refer to Figures 13 on page 149 and 14 on page 150). The researcher explored the younger (9-10 year) age group and the older (11-14 year) age group separately, and found that the aside from learning about emotions, the older age group consistently reported higher levels of acquisition. *Emotive management skills* that were reportedly applied post-intervention included: 1) self-monitoring, 2) deep muscle relaxation, 3) deep breathing, and 4) visualisation. *Cognitive restructuring skills* that were reportedly applied post-intervention included: 1) thought stopping, 2) identification and elimination of unhelpful thought patterns, and 3) positive self-talk. *Behaviour modification skills* that were reportedly applied post-intervention included: 1) problem-solving and planning skills, 2) coping skills, and 3) considering the consequences of behavioural choices. Participants also reportedly integrated the above skills in response to threatening experiences post-intervention. Participants reported the *generalisation* of coping skills in three ways: 1) in the dissemination of core programme components to family, 2) in managing challenging interpersonal relationships, and 3) in anger management.

The researcher therefore argues that these subjective reports indicate the success of the BRAVE programme in building skills and strategies that are beneficial and related to an improvement in coping. Additionally, the subjective reports may contextualise the different statistical outcomes for the younger and older age groups. From the qualitative data, it appears that the younger age group learnt and applied emotive management skills more than cognitive restructuring and behavioural modification skills, which may explain why a reduction in anxiety symptom scores were demonstrated sooner than in the older age group who reportedly acquired all three CBT-based skills more which may have resulted in a longer period between acquisition and resultant significance in the reduction of anxiety symptom scores.

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9.3.2.3 Findings of the feasibility and acceptability evaluation

Feasibility evaluation findings

The aim of the qualitative feasibility evaluation was to determine whether the brief, intensive implementation of the BRAVE programme in a semi-rural farming setting by a trained, non-clinical facilitator counsellor was feasible. The aim of the acceptability evaluation was to determine whether participants and independent intervention implementation observers deemed the contextually adapted BRAVE programme satisfactory and beneficial.

In terms of *feasibility*, it appears that the BRAVE programme was suitable for a brief, intensive implementation in a semi-rural farming setting by a non-clinically qualified counsellor trained in the delivery of the programme. This conclusion is drawn based on *satisfactory recruitment* (including the consent and assent process) rates of 77.7% with 23 of a possible 30 consented participants on 3 farm sites assenting to participation. Additionally, *retention rates were good* with 91.3% of participants who completed statistical outcomes measures at T1 also completing outcomes measures at T4. *Attendance rates were satisfactory* 76.2% of participants attending all 8 sessions, 90.5% attending 7 or more sessions, 95.2% attending 6 or more sessions, and 100% attending 5 or more sessions. all 8 sessions of the BRAVE programme were delivered to all 6 groups of participants on all 3 farm sites.

The researcher additionally considered feasibility in terms of *barriers, limitations and facilitators* of implementation (kindly refer to Figure 17 on page 176). A number of barriers to the implementation of an anxiety prevention programme in this semi-rural farming setting were identified in *Phase 1* of the current study. The contextual adaptation in *Phase 1* attempted to address these barriers, which were subsequently not present during implementation in *Phase 2* of the current study. The researcher identified limitations to the delivery of the BRAVE programme in a semi-rural farming setting that were not perceived as barriers that would affect feasibility. These included disruptions, noise and unexpected venue changes; changing NGO schedules; delivery on multiple farm sites and limited private venues for programme delivery and data collection. Despite these limitations, all sessions were delivered with 47 of the 48 sessions according to the researcher's schedule, and all outcomes assessments were completed with commitment and creativity. It was noted that limitations during session delivery (such as noise and interruptions) may have been more of a concern for the research team than the participants whose participation appeared unaffected. A number of important facilitators to implementation on semi-rural farming environs were also noted and included: buy-in from NGO staff members, support from community members,

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enhanced accessibility of children and the reduced threat of participation due to a familiar environment.

Finally, the researcher considered feasibility in terms of qualitative *intervention implementation fidelity* feedback from observers (kindly refer to Figures 17 on page 171, 18 on page 73, and 19 on page 76). Observational data were explored for categories of adherence, competence and context. The researcher *quantified observations of adherence to content*, which resulted in the finding that all 96 session observation forms (100%) evidenced the delivery of at least one element of the protocol content and 203 observations of a possible 216 specific content outcomes evidenced adherence of 93.98% to the programme protocol. Qualitative observations also highlighted *adherence certain protocol prescribed behaviours*, including scaffolding of session delivery, implementation of continuous revision, implementation of interactive and child-friendly activities, and facilitator participation and support. Non-adherence was minimal but related to forgetting session activities and forgetting or changing protocol delivery sequence. Programme implementation observers raised concerns with fidelity, but also noted facilitator flexibility.

Competence was rated very good overall with skilfulness in delivery, quality of communication and responsiveness to participants indicated as satisfactory. Concerns with competence related to time-management and variable quality in communication. The findings point to the feasibility of delivery by a non-clinical counsellor with no prior experience in delivering a group-based CBT prevention intervention, but who had received training and supervision. Concerns raised with regards to competence were minimal, but could be ameliorated by the inclusion of practical training in context-specific programme delivery.

The *impact of context* on the fidelity of intervention delivery was identified according to intragroup dynamics and contextual variations. *Intragroup dynamics* that reportedly affected the fidelity of delivery included varied group trust and cohesion, distractibility and lack of attention, discipline and developmental concerns. These contextual issues indicate a *need for further exploration* of the BRAVE programme for potential adaptations that may improve the identified intragroup dynamics and intervention implementation fidelity. *Contextual variations* that reportedly affected fidelity of delivery included interruptions, disruptions and noise, changes in venue, space and environmental constraints of venues. Although important to consider, the researcher noted that these variations may not have impacted the fidelity of delivery significantly and as argued by Santucci, Thomassin, Petrovic and Weisz (2015) the delivery of interventions in community settings instead of highly controlled settings will invariably necessitate a greater application of flexibility whilst

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attempting to maintain fidelity to the programme protocol.

In conclusion, the researcher believes that the BRAVE programme is feasible in a semi-rural farming community setting and that the current study has highlighted areas where improvement may enhance feasibility.

Acceptability evaluation findings

In terms of *acceptability*, both participants (N = 21) and observers (N = 4) reported satisfaction with the BRAVE programme. *Session-wise participant reports* indicated satisfaction in 97.6% of participant responses and in the 3-months post-intervention focus groups, 100% of the participants could mention at least one thing about the programme that was satisfactory and 95% could mention at least one thing about the programme that was helpful. In session-wise responses, participants related satisfaction to the programme being *fun, educational, teaching core CBT-based knowledge and skills, helpful in overcoming fears, group participation, cohesion and rapport, the interactive group activities, rapport with the facilitator, rewards given* after sessions and the value of exposure tasks. The *younger (9-10-year) group* related the following aspects to satisfaction more often: the value of exposure, the interactive activities and rewards, whereas the *older (11-14-year) age group* related the following aspects to satisfaction more often: being taught CBT-based skills, and group participation, cohesion and rapport higher (kindly refer to Figure 21 on page 187).

3-month post-intervention follow-up data revealed that participants associated satisfaction mostly with *skills taught in the programme: relaxation training, planning and problem-solving, changing negative thoughts, as well as the programme reward system, the utility of the fear meter, the enjoyment of exposure and the reduction in experienced fear* (kindly refer to Figure 22 on page 188). The researcher noted again that there were differences between the younger (9-10 year) and older (11-14 year) age groups in what they favoured most often, with the *younger (9-10 year) group* favouring the interest and care shown by facilitators and observers, the homework tasks and the helpfulness of the posters, and the *older (11-14 year) group* favoured most often the learning about feelings and talking about fears, learning the stop-and-think thought changing method and the facilitator self-disclosure and rapport (kindly refer to Figure 23 on page 191).

In terms of the *acceptability of contextually adapted content*, participants and observers reported satisfaction with the: *Dapper Donovan* and *Dapper Danica* narratives, *fear meter*, *burst-that-negative-thought-bubble* cognitive restructuring method, *Ek is Dapper* (BRAVE) name change and acronym, and the *I CAN choose* plan. Adapted delivery

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processes that were reportedly satisfactory included the: use of posters, interactive nature of the delivery, inclusion of self-disclosure by the facilitator, and inclusion of a built-in reward system.

Observers related acceptability of content to participants' ability to *understand, access and assimilate session content*, as well as to observed positive participant responses to specific BRAVE programme content and activities. Overall, observers noted *satisfactory accessibility of session content*, with some content considered *too complex* for assimilation by the younger (9-10 year) age group. Some observers reported that the first four sessions were *content-heavy*; however, concerns were consistently alleviated when exposure sessions were implemented, and observers reported *satisfactory participant assimilation*. Content that was rated most favourably related to *interactive activities* that increased the energy of the group with suggestions offered by some observers that *even more interactive activities* should be included. Observers liked the *relatability* of content within the new context and stated overall that content was both contextually relatable and child-friendly positive evaluations linked to participants being *engaged* in the process and the *successful reduction of anxiety* satisfaction with the *successful application* of psychoeducational content to the implementation of exposure tasks. An important observation by one observer spoke to the impact that session content had on *empowering participants*. Additional reasons for satisfaction were the *child-friendliness and flexibility* of delivery, *effective strategies* in delivering content, *responsive facilitator action*s that fostered of a *trusting group dynamic*. Observers importantly illuminated challenges in the delivery of a group-based programme to children which included the difficulty in maintaining the *balance* between discipline and building facilitator rapport and trust, catering for *varying levels* of *development*, maintaining *session energy* and keeping participants' *attention* despite distractions, and the delicacy of delivering a programme aimed at reducing anxiety within a context where *real-life dangers and threats* are prevalent (kindly refer to Figures 25 on page 188 and 26 on page 189).

9.3.3 Why does it matter?

Patel et al. (2018) argue that the global burden of mental health has increased of late, despite the development of promising prevention interventions. They further argue that this may be due to the fact that evidence-based prevention interventions have yet to be implemented as effective responses in real-world contexts. Stopa, Barrett and Golingi (2010) mandate a response to the scarcity of prevention intervention research in high-risk, socio-economically disadvantaged communities. Finally, Bentancourt et al. (2018) call for greater consideration

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of culture and context in the formulation of interventions and outcomes measures for children in Sub-Sahara African contexts. For these reasons, the outcomes and findings of the current study matter.

The findings of *Phase 1* and *Phase 2* of the current study responded to the researcher's initial intentions at the inception of this project, which was to contribute to the established need for *cost-effective, accessible and contextually sensitive anxiety prevention* interventions for South African children who are unable to access mental health services. The researcher is of the opinion that the current study *contributed to the gap in academic literature* in the field of child anxiety prevention intervention in vulnerable, disadvantaged South African contexts in a number of ways. The focus on contextual adaptation in *Phase 1* included multiple levels of adaptation on the basis of cultural, linguistic, socio-economic, developmental, literacy and logistical variations, amongst others which fit nicely within the study's guiding conceptual ecological systems theory of Bronfenbrenner (1986). In doing so, the current study generated a view of the ecological complexities that may be associated with community-based trans-contextual implementation of evidence-based interventions in South Africa. The outcomes of this study also illuminated *cultural-linguistic interpretive issues related to the definition of mental health* in South Africa (in the current study to the definition of anxiety) that may affect the development of effective and acceptable interventions as well as valid and reliable outcomes measures for children (as suggested a priority by Betancourt et al., 2018). Practical limitations of delivery that were identified did not affect the feasibility of delivery, nor the participant acceptability of the BRAVE programme, and appeared to constitute research-focused concerns of an outsiders' perspective rather than child- and context-focused strengths in delivery on farm-based settings.

The findings of the current study also contributed to the limited dialogue related to innovative solutions to barriers to the delivery of mental health services in disadvantaged, semi-rural contexts with the *novel application of a brief, intensive delivery mode* based on those currently (and newly) applied in the treatment of anxiety disorders (as suggested by Bekker et al., 2017; Elkins et al., 2011; Storch et al., 2007). This delivery mode showed promise in terms of preliminary effectiveness findings, was feasible and resulted in very little concern regarding acceptability. Additionally, the study added to the growing support of CBT-based prevention intervention as a useful response to child anxiety problems, as well as for the components already determined in the literature to be of value, such as child-friendly, developmentally appropriate psychoeducation and the application of exposure (Crawley et al., 2013; Suveg et al., 2009).

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Although the statistical findings in the current study are variable in their support of the effectiveness of the BRAVE programme, this finding is also value for a number of reasons. Firstly, the statistical findings should be considered with caution as the sample size was small and the researcher had identified persistent, interpretive problems in the outcomes measure. This finding *contributes the growing body of literature* that: (i) suggests that preliminary statistical evaluations in pilot studies are not equitable to effectiveness studies, which should be a next step should a programme deliver satisfactory feasibility and acceptability (e.g. Eldridge et al., 2016; Lancaster et al., 2004, Sidani & Braden, 2011, Thabane et al., 2010, Whitehead et al., 2014); and (ii) that mixed methods designs that include qualitative reports of perceived effectiveness of programmes contribute meaningfully to the preliminary evaluation of programmes in new contexts (e.g. Drabble & O'Cathain, 2015.)

The study also *contributes meaningfully to the more recent debates regarding the cross-cultural adaptation (CCA) of western outcomes measures* for use in non-western contexts as traditional methods of translation and back-translation do not ensure construct or semantic validity (Stevanovic et al., 2017). The challenge in the CCA of existing measures is related to the context-specificity of item interpretations (Campbell & Young, 2016) and familiarity with both the language and procedures of testing (Carter et al., 2005). It is of importance that methods in data collection do not emulate the discrimination and exclusion already experienced by marginalised groups (Aldridge, 2014). The current study demonstrated concerns with interpretation despite careful CCA, particularly in the interpretation of items in the panic and OCD subscales of the SCAS-C and SCAS-P outcomes measures that have the potential to result in the reporting of outcomes that are not indicative of anxiety but of the community's context (as suggested by Essau et al., 2012b). Importantly, the SCAS-C and SCAS-P have been found useful for use in Afrikaans-speaking South African contexts (Mostert & Loxton, 2008; Muris et al., 2002), but community consultation in the current study illuminated potential measurement concerns.

The researcher was aware of the *lack of generally available and applied context-specific, development theoretical frameworks* for the children of the current study. Thus, various elements of existing theoretical frameworks were applied in conjunction with information gleaned through interactions and consultations with the priority population. This enabled the researcher to be guided by context in her selection of theoretical components. As such, Bronfenbrenner's ecological systems (Bronfenbrenner, 1986) and PPCT theoretical frameworks (Bronfenbrenner & Morris, 2006) were selected particularly for the contextual

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adaptation in *Phase 1*. These frameworks allowed for a focus on multiple contextual systems within which adaptation could potentially bring about accessibility, feasibility and acceptability of the BRAVE programme. The consultation process in *Phase 1* also enabled the researcher to draw on relevant components of the theoretical frameworks of Bandura (1976), Vygotsky (1988; 1986) and Rachman (1977) in the adaptation, and the outcomes evaluation findings in *Phase 2* allowed the researcher to refer to the staged developmental theories by Erikson (1963) and Piaget (1972).

The researcher harbours no illusions that the current study is complete and that it has resulted in a faultless solution to the identified problem of need versus accessible service delivery. The current study has delivered a first version of a contextually tailored, developmentally sensitive prevention programme and has highlighted the risks of misrepresentation, the importance of considering finer contextual nuances, and the reality that even with the most careful exploration and adaptation, adaptation will probably still be required. It is important to understand that the inclusion of multiple layers of information and multiple community informants in the development and evaluation of interventions for new contexts is imperative, and that to fully divulge practical challenges, limitations and barriers encountered during the research process adds value. The value lies in the future development of models for effective intervention processes and procedures in community-level research that can plot the important move from research to practice, especially within new contexts.

In conclusion, these outcomes and findings matter, as the need for intervention is immediate, the danger of misrepresentation of already marginalised South African priority populations is evident, and the formulation of accessible, acceptable, feasible and effective intervention responses is too slow in the making.

9.4 You don't know until you know: the challenges encountered in the current study

Even with careful consideration of relevant literature, consultation with academics in the field and consultations with various community stakeholders, research plans will encounter unforeseen challenges. Santucci et al. (2015) argue that real-world application of evidence-based interventions require research in real-world contexts so that the actual challenges encountered can be reported and applied to the design of intervention research. Therefore, the challenges encountered in both *Phase 1* and *Phase 2* of the current study are presented in a bulleted format below.

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- *Could we get it done? Logistical and accessibility challenges.*

The current study generated challenges related to accessibility and unpredictable logistical challenges. The research *process required flexibility to existing schedules and unpredictable challenges* that cased logistical and accessibility constraints, that were associated with delivery via an NGO in semi-rural farming settings. This flexibility required *continuous negotiations and re-negotiations with various stakeholders* at various stages of the implementation of the study.

During *Phase 1* of the study, the researcher was required to negotiate with social workers and aftercare teachers for access to children and parents, as well as for specific time slots to conduct the research. During *Phase 2*, the researcher unexpectedly encountered aftercare programme managers that would be involved in the implementation and evaluation of the programme, which necessitated renegotiation of access and time slots to conduct the research, as well as the consideration of additional constraints and organisational schedules not previously communicated.

Additionally, the context of the research sites and the demanding nature of implementation and evaluation required negotiations with all relevant stakeholders, including *parent and child participants, aftercare teachers, the programme facilitator, the observers and the data collectors* in terms of changes in times or venues, for example, to ensure that data collection was completed, for example. *Arranging contact with parents and children* to provide information about the study and to obtain consent and assent required negotiation and logistical planning. Children were generally easily accessible as they attended aftercare services daily; however during data collection *numerous lengthy trips to farm sites* needed to be *repeated* to ensure that data was collected from children who arrived later than the data collection team or who were absent on the day of data collection.

Parents were accessed in multiple ways – during parent evenings hosted by the NGO, during lunch breaks and after working hours. Providing information, obtaining consent and data collection with parents also necessitated numerous lengthy trips to farm sites as *unexpected changes in arrangements* resulted from various context-specific issues, for example: parents not being available for data collection as they had unexpectedly obtained a rare opportunity to go to town on that day to acquire necessities, parents being unable to meet data collectors during a lunch break due to unexpected changes in their work schedules or locations, parents forgetting arrangements due to their own demanding schedules and the researcher's inability to remind them and the researcher having no contact with many parents, because they did not have cell phones or data or airtime to name a few.

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An *example of the commitment required* from various stakeholders in this regard was when the final parental outcomes measures were completed in T4. This coincided with harvesting time, the busiest time of the year for parents. One particular parent was extremely difficult to contact, which resulted in the NGO contacting the farm manager who arranged for contact on a specific day. The researcher travelled to the farm site for this meeting with only one parent. On arrival, the parent was not available as she was required to work in one of vineyards on the furthest part of the farm. The farm manager arranged for the researcher to travel with a staff member to meet with the parent. This trip entailed a slow, hour-long drive along a treacherous dirt road and ended with the completion of the final assessment whilst standing in the sun in a vineyard. The parent graciously took time away from her work and the researcher returned in a slightly quicker fashion as the return trip was down-hill.

The researcher had to *contend with various schedules* to deliver required context-specific protocol training to the programme facilitator, programme protocol and observation requirements to the observers, and methods and procedures to the data collectors. Additionally, the academic demands of research personnel (who were all post-graduate students) also necessitated the *recruitment, training and orientation of new observers* and data collectors during programme implementation and evaluation with the DIG in *Phase 2*.

Despite the above logistical and accessibility challenges, an important *benefit of implementation and evaluation within a community context*, such as on semi-rural farming settings, was that it enabled the researcher to identify and build rapport with key, committed community members and aftercare teachers who assisted her and her research team to overcome these challenges with flexibility and communication. Additionally, as the programme was implemented and evaluated in close proximity to the homes of most children, accessibility of children was enhanced once organisational barriers had been overcome, and thus additional logistical difficulties avoided.

- *It takes a toll: the demands of implementation.*

The implementation of the BRAVE programme resulted in the delivery, observation and session-wise evaluation of three sessions per day on three different farm sites for four consecutive days over a two-week period. This meant that the entire research team was required for 24 sessions over the two-week period and to commit approximately 8 hours per day to the study with an average of 65 km distance to travel daily between Stellenbosch University and the farm sites. This time was in addition to academic and employment responsibilities for most of the research team. The researcher noted the *fatigu*e amongst her

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research team caused by *travelling* between sites – with traffic, road works and accidents often delaying the team and causing stress. The *unpredictability of daily delivery* was demanding as the research team would often arrive at sites without knowing whether venues would have to be changed. Additionally, the *delivery and observation of intensive sessions,* combined with the travel time and unpredictable logistical problems were taxing to the team. Even the weather would at times be problematic with the IIG being implemented in winter during which muddy, slippery and wet farming environs needed to be negotiated while sometimes searching for venues. In summer, venues were stifling with small rooms and no air-conditioning. Although demanding, the brief, intensive delivery mode resulted in fewer logistical challenges with the committed focus to implement and evaluate the programme over a short period of time.

- *Your world, my world: perceptions of environmental challenges.*

The researcher would like to contrast the challenges as perceived by the research team with her own responses and the observed responses of the children. The research team was overwhelmingly empathetic and deeply moved by the extent of the poverty observed on the farming sites. The researcher noted that the research team had not been sensitised to the context, which caused them to observe numerous environmental challenges related to noise, disruption, lack of privacy, over-crowding, and less than optimal environs for the delivery of interventions. The researcher and facilitator perceived these environmental challenges differently as they had been sensitised during *Phase 1* in which the study context had been challenged in terms of how these environmental issues may affect programme delivery. It was important *to have another look at what was at first perceived as a challenge and to remove the researcher-focused lens for a more valuable child- and community-focused lens* in order to observe the vast number of strengths presented in support of implementation.

The researcher realised that though the environment presented a challenge for appropriate adaptation and effective programme implementation, it did present a challenge for children to engage meaningfully in both the intervention and the research process. An example that evidenced this was the lack of private spaces for outcomes data collection that was at first considered a challenge, but children did not appear to be affected as this context was familiar and safe to them. The challenge was then swiftly resolved by collecting data from children under trees, on little chairs around the aftercare centres or in the research team's cars (data collection in cars usually elicited great excitement) away from other

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aftercare children, which facilitated privacy and did not appear to affect children's engagement.

- *Lost in communication: differing perceptions of the requirements of the research process.*

An important challenge that the researcher encountered was the differing perceptions by all stakeholders, including NGO staff members, parents and children of the requirements of the research process. During implementation, it became increasingly evident that the *requirements for an intervention study are not easily communicated* to or readily understood by stakeholders who have little or no background in research and mental health. The researcher also found communication regarding the requirements of the current study with various NGO stakeholders challenging as the importance to control as many variables outside of the implementation as possible was not always understood.

The researcher is hopeful that more research into the various contexts within which prevention intervention research will be conducted may facilitate the discovery of additional *challenges that real-world implementation presents*. In line with the suggestion by Santucci et al. (2015), this will allow for the development of *models of mental health ecosystems* that will enable researchers to design studies and interventions that speak to effectiveness in uncontrolled environs. The researcher is confident in the degree to which she could respond to the challenges presented in the current pilot study and would rather reformulate identified challenges as opportunities for improvement in future intervention studies in similar South African contexts.

9.5 Let's not sugar coat it: Limitations of the current study

Limitations of research studies may be considered the life-blood of future research and are as important in their value as the findings as they illuminate the gaps and challenges that still need exploration. The current study encountered and resulted in several limitations that the researcher presents in a bulleted format below:

The obvious offenders:

- *Too small to tell? The limitations of a small sample size.*

The researcher included a small sample size of 21 children and one of their parents or guardians each due to the piloting nature of the study, logistical constraints of conducting

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research on multiple farm sites, the BRAVE programme that limited group sizes to four children and limited available children within the required age range on each of the farm sites. It may be argued that the small sample size is an important limitation to the current study as it poses obvious limitations on the interpretation of statistical outcomes findings. Of course, the potential lack of statistical power due to the small sample size (Graziano & Raulin, 2004) should contextualise the examples of non-significant statistical findings. However, the current study was intended to pilot test the BRAVE programme and as such focused on a number of outcomes instead of effectiveness testing alone. This, the researcher argues, should be considered the next step if the current study findings support the potential of the BRAVE programme.

- *The convenience of convenience sampling.*

Convenience sampling (as was applied in the current study), particularly with small samples, may result in selection bias with many children who live on farms in the Western Cape not being represented in the current study. Farm sites were selected for inclusion in the current study as they were close to one another in distance and reduced logistical and practical barriers of implementation could most certainly have biased the sample. As generalisation of findings was not an intention of the pilot study, this concern may be addressed if the BRAVE programme is implemented in an effectiveness study. However, the researcher noted the impact that non-comparable samples have on the validity of findings.

- *More stats please. Only one statistical outcomes measure.*

An important limitation to the current study is the fact that only one quantitative outcomes self-report measure was utilised. This was in the form of the cross-culturally adapted SCAS-C and SCAS-P measures to evaluate pre- and post-intervention anxiety symptoms. Additional quantitative outcomes evaluations may have provided a broader understanding of the potential of the programme, for example by the inclusion of programme implementation fidelity measures. The contextual adaptation implemented in *Phase 1* would also have benefitted from evaluations of development, cognition and executive functioning to better guide developmental adaptations and to consider these components as mediators of effectiveness of the BRAVE programme in *Phase 2*.

The researcher included parents / guardians as informants to triangulate children's self-reported anxiety scores, but this approach presented its own limitations with parental

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scores of their children's anxiety supporting some trends and contradicting others, further relating to the potential limitations caused by sample size. Additionally, consistent with findings in research studies that apply concurrent evaluation of child anxiety, the parents in the current study underreported their children's anxiety symptoms leading to discrepancies (Rodgers & Dunsmuir, 2015). Self-report outcomes measures present limitations; therefore it may be useful to include more objective measures from multiple sources and to consult meaningfully with communities (Essau et al., 2012b; Miller et al., 2011). Finally, the researcher considered the limitation of not including a 6-month follow up anxiety score evaluation for the DIG of the current study, as the tendency for delayed responses have been noted.

- *Did it make a difference? The limitation of not including a comparison group.*

As the current study focused on the contextual adaptation of an existing anxiety prevention intervention, the DUTCH programme, and an evaluation of the adapted BRAVE programme's preliminary effectiveness, feasibility and acceptability, an important limitation of the current study is that the researcher did not compare the adapted programme to the original in the new context. This would have enabled the researcher to establish whether outcomes resulting from the adapted programme are in fact enhanced – whether the adapted BRAVE programme is more suited and effective, more feasible and more acceptable than the original programme. The researcher notes this limitation; however also considers the value of the extensive consultations in *Phase 1* with NGO staff members and children with regards to the required adaptations to enhance impact, feasibility and acceptability.

The chosen culprits

- *Rather the measure you know - the use of the CCA SCAS outcomes measures.*

It is acknowledged that the use of the cross-culturally adapted (CCA) SCAS-C and SCAS-P measures was a limitation in the current study. The CCA implemented in *Phase 1* illuminated a number of linguistic-cultural limitations due to context-specific interpretations of items. Of course, as pointed out by Betancourt et al. (2018) this runs the risk of measurement errors and misrepresentation of the true effectiveness outcomes of an intervention. However, the choice to use the CCA SCAS-C and SCAS-P presented a number of benefits. At the time of the study, as far as the researcher could ascertain, there were no available, alternative CCA anxiety outcomes measures for the priority population. Also, adaptations made during the

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CCA of the SCAS outcomes measures enhanced its cultural relevance and the identification of continued difficulty with two subscales in particular alerted the researcher to the importance of caution in the analysis and interpretation of statistical data.

- *Missed opportunities. The exclusion of parents.*

The researcher made the decision to exclude parental involvement in the programme during *Phase 1* of the current study. This decision was based on consultations with NGO social workers who indicated difficulty in accessing parents consistently due to varying schedules, fluctuating access to communicative tools such as cell phones, parental fatigue due to demanding working hours and an inability to find effective motivating mechanisms to foster attendance. Additionally, the reality that many children either did not live with their parents or had lost one or both of their parents and consequently lived with relatives (kindly see the demographic Table 1 on page 71) who may not be invested in participating in the programme further supported the researcher's decision. The literature on parental involvement (as found in e.g. Manassis et al., 2014) offered no conclusive support for the inclusion of parents. However, during the implementation and evaluation of the programme, the researcher considered the *exclusion of parents a potential limitation*. Perhaps the key question is not whether to involve parents, but rather *how to involve them* to enhance outcomes. Some children in the study spontaneously initiated dissemination of programme coping skills to their parents and reported beneficial outcomes and improved relationships, which indicated to the researcher that potential lies in delivering psychoeducation to parents and that care should be taken to formulate adapted approaches to enhance the feasibility and acceptability of parental involvement.

- *Too much and too short? The risk of a brief, intensive delivery mode.*

Although the traditional approach to the delivery of CBT-based anxiety prevention interventions entails weekly sessions, the contextual adaptation implemented in *Phase 1* of the current study identified numerous barriers to this delivery mode. Therefore, a key adaptation was the adoption a brief, intensive delivery mode that has been garnering support in newer applications of anxiety treatment interventions (Öst & Ollendick, 2017). Although the researcher considers this approach a strength of the BRAVE programme with a cautious interpretation of promise in effectiveness, feasibility and acceptability. However, it must be considered a potential limitation that could have contributed to the non-significant findings of

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the current study. The possibility that the increased dose delivered over a shorter period of time may have reduced the participants' ability to assimilate and integrate programme skills is noted as a potential limitation. However, a high dose of delivery format has been found to enhance outcomes (as suggested by Barret et al., 2006). Craske et al. (2012) argue that intensive formats are most helpful as it has been found that exposure sessions (considered key to the effectiveness of CBT for child anxiety problems) are most effective if delivered closely together. Also, the brief, intensive delivery mode resulted in low attrition rates, good attendance and may have resulted in the successful acquisition of programme taught coping skills due to the close proximity of sessions and the higher dosage.

9.6 What is the value of all this? Practical applications and implications

The value of the current research project lies in its potential contributions to and implications for mental health research, practice and policy in the South African context. The findings of *Phase 1*, the contextual adaptation of a western evidence-based intervention for the South African context, contributes to the scientific and practical applications of methods and procedures that are sensitive to and inclusive of the communities for which they are intended. Additionally, these findings carry implications for best practice in future trans-contextual intervention research within marginalised, disadvantaged and vulnerable communities.

The findings of *Phase 2*, the implementation and evaluation of a contextually adapted intervention within a disadvantaged, semi-rural, vulnerable community of farmworker children, contributes to current debates regarding mental health practice and policy in the South African context. Particularly, the study outcomes suggest a number of implications for the delivery of evidence-based (anxiety) prevention interventions to communities who have largely been excluded from access to mental health literacy, interventions and services.

These potential contributions have been considered according the headings below:

- *First attempt to deliver and evaluate an adapted anxiety prevention programme to vulnerable children in a South African semi-rural farming community setting*

As far as the researcher could ascertain, the present study was the first to contextually adapt an existing CBT-based prevention intervention programme for application amongst vulnerable children in disadvantaged, semi-rural farming contexts in South Africa, and to evaluate such an adapted programme for its preliminary effectiveness, feasibility and acceptability within this context. Thus, this study filled an important gap in the current literature related to the transcultural (or trans-contextual) use of evidence-based prevention

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interventions, contextual programme adaptation procedures and outcomes, and the responses of vulnerable, South African farmworker children to participation in such interventions. Along with this, the researcher could share practical information related to not only challenges but also the opportunities found in conducting research in community contexts that may be overlooked when researchers move from highly controlled research contexts to community contexts where traditional notions of implementation and programme evaluation are counter-productive and undermine the strengths already present in real-world contexts.

- *A novel application of brief, intensive, group delivery of a CBT-based anxiety prevention intervention*

As far as the researcher could ascertain, the present study was the first to apply a brief, intensive delivery mode to a community-based anxiety prevention intervention. This novel application allowed for the application of creativity in responding to barriers that would have prevented the feasible delivery of the BRAVE programme to participants of the current study. Such barriers related specifically to the pervasive, socio-politically determined constraints in the provision of mental health care to impoverished communities who are most affected by the inadequacy of current mental health care services in South Africa. Such constraints have been documented extensively in this dissertation and include amongst others human resource, time, financial and geographic barriers that severely impede the provision of mental health care services to children in marginalised contexts.

Although, the brief, intensive approach to CBT-based interventions has thus far been applied only to treatment interventions aimed at anxiety disorders, the researcher felt that it had evidenced enough support to justify this novel application to prevention in the South African context. Furthermore, as prevention interventions often originate from developments in treatment approaches, this transition to a brief, intensive preventive application may present implications for future practice and research in disadvantaged community settings and amongst children with worrying levels of anxiety symptoms. The potential value of delivering fewer, shorter sessions over a significantly decreased amount of time to a group of children as opposed to lengthier individual programmes should be explored further.

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- *Implications for task-sharing in response to the mental health services dilemma in South Africa*

The findings of the current study suggest important policy and practice implications for the delivery of mental health services in the South African context. Task-sharing has been suggested as a strategy to alleviate the pressure to make mental health care more accessible in South Africa (Spedding, Stein & Sorsdahl, 2015). What task-sharing implies is the utilisation of non-specialised health care service providers to deliver mental health interventions, an approach that has seen nurses, teachers and community workers trained to fill this gap.

Currently the South African Mental Health Policy Framework (MHPF) stipulates a number of foci that include the promotion of mental health, the empowerment of local communities to promote mental health, and the implementation of evidence-based interventions, amongst others (Spedding, Stein & Sorsdahl, 2015). Additionally, the MHPF has identified task-sharing as a potential means of realising its mental health objectives (Spedding, Stein & Sorsdahl, 2015).

The current study offers insights into this approach. Firstly, the outcomes of the feasibility evaluation highlighted the costs of sustainability of such an approach where significant training and supervision may be required. Secondly, this study suggests the consideration of task-sharing with honour's level psychology graduates in South Africa who may be provided with training and supervision as CBT prevention intervention specialists. Additionally, this study has contributed to the literature surrounding the training needs involved in task-sharing. Also of importance to task-sharing, are the types of qualities, skills and competencies that result in equitable delivery by non-specialist service providers (Spedding, Stein & Sorsdahl, 2015), which have been explored in the current study.

- *The importance of community consultation, context and cultural sensitivity in intervention research*

The current study has added value in its exploration of cultural elements of relevance in intervention research and has illustrated that the inclusion of culturally sensitive components in the BRAVE programme has the potential to enhance fit and acceptance as well as the success of the programme in delivering core content. Extensive community consultation generates in-depth understanding of communities and arms the researcher with information to avoid partaking in the further marginalisation and misrepresentation of vulnerable groups. As argued by Aldridge (2014), researchers run the risk of effecting exclusion and discrimination

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by the uncontested application of conventional methods that do not take the contextual needs of communities into account. Also, the current study adds to the more recent move from definitions of culture in adaptation to a more whole-systems approach of contextual adaptation that is multifaceted and takes the complexity of contexts of violence, crime, poverty, for example into account (Castro-Camacho et al., 2018).

- *Critical consideration of outcomes measures in cross-cultural research practice*

The importance of considering the cross-cultural use of outcomes measures in the South African context was illuminated by the current study in which important interpretive challenges were identified. The results of outcome measures are often used as the golden standard against which the value of interventions is measured. However, it is increasingly evident that face validity and translation can no longer substitute consideration of construct and semantic equivalence in cross-cultural application. Young (2009) argues that the challenge in the CCA of outcomes measures is the identification of context-specific interpretations that result in only partial measurement equivalence, as was done in the current study. A contribution of this study is the detailed presentation of an iterative qualitative consultation and adaptation approach for the cross-cultural adaptation of measures and it has identified the limitations of CCA, including the reliance on consultation before statistical evaluation, a step often missing in the cross-cultural use of measures.

- *Practicalities of implementing interventions in semi-rural farming communities*

The current study also added value by referencing practical-logistical issues related to the implementation of interventions in semi-rural farming community settings. This information would have assisted the researcher from the inception to the completion of the current study, and therefore by providing details of the practical issues of the current study, the researcher hopes to provide valuable insights into potential challenges as well as strengths of intervention implementation that may be encountered in similar contexts.

9.7 What's next? Recommendations for future research.

From the current study, the researcher recommends the following foci for future research:

The current study identified the need for further exploration of outcome measures in the evaluation of mental health interventions. The current study illuminated linguistic, cultural and contextual elements that influence not only test-taking practises but also the

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interpretation of items on outcome measures (as in Aldridge, 2014). The concerns raised on the panic and OCD subscales of the SCAS-child and -parent measures may not be intrinsic to the particular outcomes measure used in the current study but may point to a more pervasive issue in the transcultural application of measures. The risk of misrepresentation and inaccurate findings necessitates further studies to explore culturally determined definitions of for example anxiety symptoms and to either choose the best existing measures for careful cross-cultural adaptation or to develop new measures specifically for South African contexts.

Related to the above suggestion for further research, the researcher recommends that context-specific definitions and conceptualisations of mental health and treatment be explored. Future intervention studies will benefit from consideration of attitudes, beliefs and practices related to mental health issues, such as anxiety problems.

The findings of the current study suggest that the BRAVE programme appeals more to and can be assimilated more by the older (11-14 year) age group. Thus, future research should consider context-specific adaptations required to include younger children more meaningfully.

Importantly, the researcher feels that parental involvement should be more fully explored in terms of parental attitudes, conceptualisations of mental health and illnesses, and the degree to which and manner in which parents may want to be involved in intervention programmes. Additionally, research should focus on the identification of contextual adaptations that may optimise parent involvement, buy-in as well as the outcomes of parental inclusion for children.

The current study also identified a possible trend amongst participants to externalise their anxieties or fears in what seems to be a ‘fight’ response to perceived threat. The researcher discovered from consultations with participants that some internalising symptoms (for example crying or shaking) are not considered socially acceptable and a sign of weakness. Anger, on the other hand, is considered an acceptable way to address threat without seeming weak. Interestingly, a few participants indicated utilising BRAVE programme skills to address elevated levels of anger or aggression. Further research is required to explore this potential finding.

As the novel brief, intensive delivery mode of the group CBT-based BRAVE programme showed promise in lowering elevated levels of anxiety symptoms, resulted in the acquisition of programme-based knowledge and coping skills, was considered feasible in the study context and deemed acceptable, the researcher believes that this new approach to prevention intervention warrants further study to explore its potential further.

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9.8 The final word

In conclusion, the current study was framed by a social justice agenda. It attempted to address, in some way, the human and constitutional right of children from marginalised, vulnerable communities to access services that may respond to their mental health needs. Vulnerable children from disadvantaged communities especially have been exposed to violence, oppression and poverty, and their well-being is affected by infrastructural deficiencies, contextual vulnerabilities and helplessness in the face of their socio-political contexts (Savahl et al., 2015). Although child mental health, and particularly prevention intervention, have been stipulated a priority in South Africa, few studies have attempted to generate feasible, acceptable and accessible prevention programmes that may bridge the gap between need and delivery. What the current study contributes is such a response – the consideration of the potential impact and value of a contextually tailored, brief CBT-based prevention intervention programme. Moreover, the current study reiterates that such programmes can be delivered to a larger number of children due to their success in group delivery formats and that they also offer a reduced need for masters' degree level trained practitioners.

The contextual adaptation implemented in *Phase 1* of the current study delivered the 8-session, group CBT-based BRAVE anxiety prevention intervention programme for delivery by non-clinical counsellors trained in the delivery of the programme. This programme was tailored contextually to fit with a new population and setting – vulnerable children of farmworkers who live in disadvantaged circumstances in the Western Cape of South Africa. A brief, intensive delivery mode of 8 sessions over two weeks resulted from adaptation. This adaptation included an interactive, child-friendly delivery process, content that was adapted contextually and culturally to enhance acceptability and fit, and a delivery format adaptation to enhance accessibility and feasibility. Evaluation of the programme indicated promising preliminary findings of the potential effect of the BRAVE programme to reduce elevated levels of anxiety symptoms. Additionally, the programme evidenced subjective reports of its perceived effectiveness to develop CBT-based coping skills. The programme was also found to be feasible and acceptable for application with children in semi-rural farming community settings. The programme evaluation identified potential areas for improvement as well as challenges and limitations that may be considered in future applications of the intervention.

It may be argued that elements of the application of the BRAVE programme may lack true feasibility in terms of its preference for programme facilitators trained in psychology, counselling and CBT, as well as its demand on resources for delivery in semi-rural

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communities. However, how does this approach compare to current models applied in our response to the mental health needs of vulnerable, disadvantaged communities? Current mental health care response models include either professionally trained, specialised psychologists, primary health care workers such as nurses, or educators, such as teachers. This approach of over-extending the limited number of clinically trained psychologists or health care and educational practitioners who already have full schedules and who are not specifically trained for mental health intervention delivery, is arguably even less feasible. Policy could do with re-consideration and the potential value of facilitators trained as prevention intervention specialists should be explored. Furthermore, the accessibility of mental health care services has been established as a barrier to the provision of mental health care services. Thus, even though it may be argued that the delivery of mental health interventions in semi-rural communities lacks feasibility, the researcher begs the question: feasibility for whom? If we should earnestly desire to address the mental health of vulnerable, disadvantaged children in South Africa, we will have to shift the burden of accessibility. True feasibility lies in making the resources available for delivery where communities can access services, not to place the financial and time resource burden on already over-burdened communities and their children.

The issue of mental health care delivery to vulnerable, disadvantaged South African children is complex and will not be addressed without challenges. The researcher is satisfied that the current study formulated a response to the call for the development of accessible, cost-effective and effective prevention interventions to close the gap between need and delivery which is particularly wide in disadvantaged South African communities. It is hoped that the findings of this study make a tangible contribution to prevention intervention research in the South African context and will be valuable in the formulation, adaptation and implementation of child mental health policy.

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Appendices

Appendix A

Letter of permission to use, translate and adapt the Dutch Dappere Kat programme

Radboud University

To prof. Helene Loxton
Associate Professor
Department of Psychology
Stellenbosch University
Private Bag X1
MATIELAND
7602

Nijmegen, the Netherlands, June 24th 2015

We hereby grant permission to prof Helene Loxton (Stellenbosch University) to use, translate and adapt the manualised Dutch groupversion of Coping Cat (a CBT-based prevention and intervention program) as the basis of the development of a South African groupversion of Coping Cat.

Sincerely,

drs. M.L.A. van Starrenburg
dr. R.C.M.W. Kuijpers
prof. dr. R.C.M.E. Engels

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Appendix B

Semi-structured Focus Group Interview Guide

based on Visagie (2016)

FOCUS GROUP SCHEDULE

Information to relay in a child-friendly introduction:

- Purpose of the focus group session.
- An explanation of the concept of research.
- An introduction to feelings, anxiety and anxiety symptoms amongst children
- Assurance of confidentiality and that there are no right or wrongs answers.

Possible questions:

1. All of us feel worried or nervous from time to time, even grownups. Have any of you ever felt this way?

2. Can you tell me about it, what happened to make you feel like this? /what things are difficult for you?

3. Tell me what you have done in the past to make you feel better? What made things feel worse for you?

4. I want to make a programme that will help children who feel like this.

5. What do you think other children (like you or your friends) struggle with?

6. What would you like to learn about in a programme that will help you with feeling worried or nervous?

7. What are the kinds of things that you like to do for fun or that make you feel good?

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Appendix C

Qualitative Form 2: Session-wise Programme Implementation Observation Form

based on Visagie (2016)

RESEARCH ASSISTANT OBSERVATION FORM

Observations/evaluations of session process and content

In completing this form, you will assist the researcher in evaluating the feasibility and improving the implementation of the programme. Honest and sincere responses will be appreciated.

Session Number	
Observer's Name	
Experimental Group	

1. SESSION CONTENT

This relates to all the information and activities covered by the group leader during the session.

1.1 What aspect(s) relating to the **content** of the session **stood out the most**?

_____

_____

_____

_____

1.2 What aspect relating to the **content** of the session may be **improved**?

_____

_____

_____

_____

1.3 Which part / aspect of the session did the group participants **respond to best**?

_____

_____

_____

_____

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1.4 Kindly state any **additional comments or suggestions**:

_____

_____

_____

_____

2. SESSION PROCESS

The session process refers to the **manner in which the session content was delivered** by the group leader and the way in which **the session proceeded**.

2.1 What aspect relating to the **delivery** of the session (process) **stood out the most**?

_____

_____

_____

_____

2.2 What aspect relating to the delivery of the session (process) may be **improved**?

_____

_____

_____

_____

2.3 Kindly state any **additional comments or suggestions**:

_____

_____

_____

_____

Signature of Observer: _____ Place signed: _____

Date: _____

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Appendix D

Themes explored during consultations with NGO representatives

Table 3

Surface and Deep Structure Themes Included in NGO Staff Consultations

Surface Structure Mismatches	***Deep Structure Mismatches***
Compatibility of suggested programme and potential facilitators with community.	Suitability of intervention goals and model.
Fit and cultural relevance of metaphors, examples and language.	Principles of CBT-based Intervention and suitability.
Exploration of sub-cultural usage of Afrikaans language for inclusion in translation process.	The suitability of the DUTCH programme FEAR plan.
Fit and cultural relevance of intervention materials and messages.	Logistical, cultural and socio-economic determinants of content and delivery choice.
Exploration of alternative metaphors, examples and language for adapted version.	Definition and culturally imbedded understanding of anxiety and fear.
Best delivery style for the intervention.	Role of developmental and literacy levels in intervention content and delivery choice.
Potential barriers to the delivery of the intervention.	Relevance and prominence of childhood anxiety and fear in the new context.
Evaluation of socio-economic status, age and developmental level.	Contextual and cultural considerations in adaptation of intervention components.

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Appendix E

Step 1: Selection of the DUTCH prevention intervention programme

Table 4

Summary of supporting information for Step 1 of the cross-cultural adaptation framework suggested by Card et al. (2011)

Guiding questions	**Supporting Information**
Does the intervention have behavioural and health status goals relevant and acceptable to the new population and community?	A literature review and consultation with the study supervisor determined that the goals of reducing elevated levels of anxiety symptoms and increasing coping skills were relevant and acceptable. Previous research had indicated elevated risk for and presence of anxiety symptoms amongst children in similar contexts (Mostert & Loxton, 2008; Muris, 2004).
Has the intervention shown strong evidence of having achieved one or more of these goals?	The intervention and its derivatives has a strong evidence base for effective, transcultural use towards the reduction of elevated levels of anxiety amongst children in different contexts, such as the *Coping Cat* in America (Kendall, 1994), the *FRIENDS* in Australia (Lowry-Webster et al., 2001) and the *Dappere Kat* (van Starrenburg et al., 2017) in the Netherlands.

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Does the intervention address knowledge, values, attitudes, skills, intentions, and other determinants of behaviour that are relevant and acceptable?	The intervention programme develops relevant and acceptable forms of knowledge, values, attitudes and skills to address elevated levels of anxiety symptoms amongst children and to promote resilience and psychological wellbeing by means of manualised psychoeducation and exposure. Skills were practical and simple.
Does the intervention use content and methods that are likely to be accessible and appealing to the new priority population?	The content was considered likely to be appealing as it was child- and developmentally- friendly and the methods were likely to be accessible as the intervention structure is simple. It was evident that contextual adaptation would enhance the accessibility and fit of the intervention.
Does the implementing agency have access to the resources needed to acquire, plan, and deliver the program?	The researcher has access to the resources required to plan, adapt, implement and evaluate the prevention intervention programme in the form of the expertise of the study supervisor and support from the developers of the DUTCH prevention programme, logistical and practical support from the collaborating NGO, and funding.

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Appendix F

Step 2: Researcher Mobilisation of the DUTCH prevention intervention materials

Table 5

Summary of supporting information for Step 2 of the cross-cultural adaptation framework suggested by Card et al. (2011)

Rationale	A cognitive-behavioural prevention intervention for children aged 7 to 13 with subclinical levels of anxiety, which aimed to reduce symptoms, increase CBT-based coping skills and consequently prevent the onset of anxiety disorder.
Goals and Objectives	The overall goal was to reduce elevated levels of anxiety symptoms by means of a manualised group-delivered CBT-based psychoeducation and exposure to: (1) identify and understand emotive, cognitive and behavioural components of anxiety; (2) promote emotive management, cognitive restructuring and behavioural modification skills by means of relaxation training, changing dysfunctional thought patterns, and the development of problem-solving and planning skills; (3) practise psycho-educational coping skills in exposure; and (4) establish evaluation and reinforcement of learnt CBT-based skills.

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Theory of Change	Psychoeducation aimed at the identification and change of maladaptive thought and behavioural responses to feared stimuli (both real and imagined), together with the development of emotive control strategies (such as relaxation training) would improve coping strategies which would, after the implementation of graded exposure with rewards as reinforcement, reduce elevated levels of anxiety symptoms in Dutch children aged 7 to 13 (Grade 1 to 8) with subclinical anxiety.
Protocol Guide	Protocol guidelines included details of session presentation, activities and a particular approach to Dutch child participants, who were conceptualised as possibly assertive and confident. The protocol devoted much guidance to the approach to group management. The protocol outlined sequential delivery of sessions and included adaptations for Dutch culture.
Manuals	A facilitator manual outlined the protocol and content of each session. Session delivery and approach, as well as structure and time-management guidelines were not included. The participant manual was heavily based on written activities and included written session-wise homework activities.
Potential Limitations in Transcultural Application	Linguistic and semantic concerns related to a mostly Western-based application of session content were identified. Limitations in terms of both Dutch- and American-based metaphors, examples and activities were noted. The reliance on a reward system as reinforcement was considered potentially inappropriate in a context of a semi-rural children living in poverty. The use of children's manuals that required reading and writing was considered a limitation in the new context.

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Appendix G

Step 4: Researcher Identification of Core Content and Delivery Components to be Preserved

Table 6

Summary of supporting information for Step 4 of the cross-cultural adaptation framework suggested by Card et al. (2011)

Core content components to be preserved	
Theoretical underpinning	Cognitive-behaviour therapy is efficacious in addressing anxiety (kindly refer to Chapters 1 and 2 for supporting literature). Adapted versions have also been found effective.
Psychoeducation	Integrated cognitive-behavioural skills development plan in the form of the FEAR plan. F: Feeling frightened? *Distinguish between various emotions (anger, joy, anger sadness), recognize physical symptoms consistent with anxiety, relaxation training.* E: Expecting bad things to happen? *Identify dysfunctional thoughts (disturbing, frightening, catastrophic) and inferences (if anyone laughs at me then I'm dumb) and change them to the opposite via cognitive restructuring.* A: Attitudes and actions that can help. *List possible things that can be done to make a situation less scary: humour, helpful thoughts, activities, etc. and score options. Rehearsal via exposure to practise new behaviour.* R: Results and rewards. *Effort is rewarded in order to facilitate the acquisition of new behaviour and thinking.* (continued)

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Exposure	Exposure – Graded: gradual, often repeated and long enough to allow for the extinction of anxiety. Specific, clear, simple and unambiguous so that anxiety would be reduced, and a sense of control developed.
Core delivery process components: best-practice characteristics to be preserved	
Group cohesion and safety	Exercises to enhance group cohesion and safety throughout the programme. Therapist led, confidential and informed consent. Focus on effective group management.
Effective motivation	Rewards for participation and homework assignments. Giving hope for change; assisting with positive re-labelling; building rapport with participants; showing confidence, giving individual attention; illustrating empathy and not avoiding difficult topics; appropriate self-disclosure; inclusive approaches such as dialogue; focusing on the participants' point of view; varied repetition; matching the world view and language of the participants and providing structure and clarity and importantly rewarding successes. Motivational rewards to encourage a positive attitude towards acquisition of new behaviour: encourage participants to participate in fear-inducing exposure in stead of avoidance behaviours that would result in long-term reduction of anxiety. Change participants' perception of the 'benefits' of avoidance behaviours and the 'risks' of facing fears.

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Cultural tailoring	Cultural tailoring of translation, structure and approach for new priority populations. The programme was adapted for a Dutch sub-clinical population and shortened with fewer psychoeducational sessions and sooner exposure. Inclusion of Dutch metaphors and examples.
Multiple delivery methods	Group discussions, focus groups, role-play, writing etc. Multiple activities to enhance psychoeducation and rehearse learnt coping skills. Manual is 45 pages in length – thus relied heavily on reading and writing, and exclusion was based on literacy. Children practise different anxiety provoking situations in role play and as homework.
Multiple sessions	A reduced number of 12 session, with 6 focused on psychoeducation and 6 focused on graded exposure.
Focus on reduction or increase of behaviours	Anxious avoidance behaviours and dysfunctional thoughts targeted for reduction during exposure that aims to increase emotive control in the form of relaxation and cognitive restructuring to change avoidant behaviour.
Developmentally appropriate activities	The multiple delivery methods, 1-hour sessions and content appropriate for literacy and developmental levels of Dutch children included in the programme.
Logical sequence	Sessions planned according to therapeutic goals in a systemised, theme-related manner.

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Appendix H

Step 5.1: Identification of Deep Structure Level Mismatches

Table 7

Summary of supporting information for Step 5.1 of the cross-cultural adaptation framework suggested by Card et al. (2011)

Deep Structure Level	**Mismatches**	**Supporting information**
Programme Goals and Objectives	*Mid-term goal: reduction of avoidant behaviours not fully matched.*	Pre-intervention focus group statement: *There was someone who shot at us children at school. We were scared, mam. He is a shopkeeper and some kids had stolen sweets from him. So he came to our school and shot at children.*
	This goal was not appropriate in South African context that presented real threats and dangers that were prominent, resulting in avoidance behaviour amongst children being functional and necessary.	Pre-intervention focus group data about what fears: *You were in trouble, you were naughty, your mommy is angry. Tsotsies chase you, mam. Or you missed your taxi and must get home by yourself.* Researcher observation notes during group consultations*:* *Important to distinguish between fears that are "normal" for context and fears that are excessive. Realistic fears should not be dealt with via exposure and fears that are "excessive" or harmful and should be remediated.*

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		However, the context (Bronfenbrenner's micro, macro, meso) that SA children live in creates an environment that is unsafe, traumatic and 'scary'. Therefore, the goal for this intervention should be modified to focus on developing an understanding of the difference between realistic and unrealistic fears. Then to focus on the development of coping strategies for both, whilst developing an understanding in children that the situation / context of fear cannot always be changed: the criminal / bully / violence, but that their response to / the degree to which it will affect them can be changed. *The (very real) threat of burglars who will cause harm features a lot. Children, in response to the programme, offer alarmingly dangerous plans. How will this be addressed in a manner that (1) ensures healthy, protective responses, (2) teaches emotive, cognitive and behavioural choice / control when real threat is not present, and (3) avoids harmful choices / behaviours related to confronting criminal elements when programme goal of reducing avoidant behaviour is implemented.*
Theory of change	*Psychoeducational aims were consistent, but were considered mismatched to younger age groups and larger group sizes in the new context.*	Researcher observation notes during group consultations: *Children had existing knowledge of four basic feelings (happy, sad, angry and scared), but had very little psychological knowledge, particularly about cognitions and behaviours. Children confirmed the experience of fear and anxiety. It is therefore verified the potential beneficial effect that psychoeducation and exposure-based training may have on children's expressed fear and anxiety*. (continued)

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		The two children who are 7 and 8 are completely lost in sessions. They are disengaged, appear to be threatened and do not understand concepts that require more advanced cognitive skill. *The group consultation session with four children showed just how distractible and hyperactive some children are. More than four will not allow for effective group management.*
Characteristics of New Priority Population	*Socio-economic status: in this context, the priority population has a low SES as opposed to the fist world Dutch content.*	Researcher consultations with NGO social workers. *The social workers explained that the community of children and parents who participated in this study survive on minimum wage. Some incomes are seasonal, which means that there are often long stretches of the year where there is little or no income and children are supported with state grants. Children and families are poor with little in terms of luxuries or resources for rewards.*
	Socio-political: *mismatched in terms of social-political context-specifically a population disadvantaged and vulnerable based on historical legacy of Apartheid and Dop System.*	Researcher observations, consultations (with developers of the Dutch programme developers, the supervisor of the current study and NGO social workers) and exploration of literature. *Social factors***:** mismatches lie in level and quality of education; rural and urban dwelling; level of income; family structure and functioning; parenting styles; physical environment; and security in environment. (continued)

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	Dutch context: no abject poverty, low national crime rates and egalitarian society. South African context: poverty, high national crime rates, social and economical inequalities due to socio-political history. Social programs are limited. Group consultation researcher notes on mismatched activity: *Children who live on farms do not really have addresses or telephone numbers. This should be removed as it causes discomfort during the session.* *Children couldn't relate to the example in the programme of a child who was unnecessarily afraid of her mother's reaction because she had lost her shoes. They were confused about why this should not be a highly threatening situation. When we explored fully, it was revealed that there is no money to replace shoes if they are lost and that losing your shoes would carry dire consequences and harsh discipline.*
Educational levels are often low in South African contexts with varying degrees of literacy and education.	Group consultation researcher notes: *Writing activities not appropriate. It takes a lot of time and children with low levels of literacy are conscious of shortcomings and seem shy.* *The DUTCH prevention programme excluded participants based on illiteracy. This is not possible in the community targeted in the South African context as a much lower level of education is expected. The reliance on reading ability must be addressed in the adaptation.*

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	Environment mismatched as new population lived in semi-rural, impoverished environs and programme delivery would be in over-crowded, noisy, unstructured contexts.	Researcher observations. *The farm settings reveal significant poverty. The aftercare house is small, too small for all the children who crowd in after school. Some sit on the floor. It is noisy and warm inside. The furnishings are old and tattered. Children sit all over in the three-roomed building. The little ones are noisy while the older children try to get some homework done. The teachers have to raise their voices to be heard. It feels chaotic. Some have arrived late because their taxi didn't arrive to fetch them. They had to walk for over 1 ½ hours.*

Note. This table presents example extracts from consultations, observations and researcher notes gathered during the contextual adaptation implemented in *Phase 1* of the current study in support of identified mismatches between the DUTCH programme and the new context.

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Appendix I

Step 5.2: Identification of Surface Structure Level Mismatches

Table 8

Summary of supporting information for Step 5.2 of the cross-cultural adaptation framework suggested by Card et al. (2011)

Surface Structure Level	**Mismatches**	**Supporting information**
Cultural Fit with beliefs, norms and values	A number of mismatches were identified	Researcher observations. *Group "rules" – children seemed unable to associate the formulation of rules to the process of the intervention. An idea is to set up group "rules" – reconsider wording – and to present them to children. Children in this context are shy of the strangeness of the researchers and not used to being consulted – therefore to require of them to formulate the rules creates discomfort at the beginning of the programme when they are not assertive / comfortable yet.* *Examples in this session are not applicable – not contextually or culturally appropriate and should be reconsidered.*
Contextual Fit	A number of mismatches were identified	Researcher observations.

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		The word session "rules" does not create a sense of belonging, togetherness and collaboration / respect. Should be reworded. It disengages children (possibly due to authoritarian teaching and parenting styles employed in this context). *Children point out irrelevance of programme content – bicycle riding to dentist, for example.* *Logistical issues in community setting – distractions from outside, such as aftercare closing time / other children need to be considered in planning. Little time to present sessions.* *Too many examples of challenging thoughts in this session – too complex and also not context-specific or culturally relevant.*
Fit with everyday experiences	Mismatches were identified with everyday experiences real-life fears / experiences that are not contextually relevant.	*Children contribute to story alarmingly with statements of confrontation of criminals. Important to consider safety in the presentation of a programme that aims to reduce fear and avoidant behaviour.* *Activity should be based around a common fear / context-specific fear that all children can relate to. Scenarios / experiences outside of their frame of reference / unfamiliar to them - is not effective. This should be established before the session and content adapted accordingly.*
Acceptance	Observed acceptance was influenced by a lack of	*More child-friendly and interactive approach needed to (1) grab attention and (2) maintain interest and (3) ensure understanding.* (continued)

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	motivation, session delivery that was not interactive or child-friendly, disciplinary issues and lack of rapport-building in the programme.	*Children appeared bored and uninterested. Attendance varies with 2 children absent today.* *Programme will have to offer enough incentive for participation to work effectively… Children may be fearful / bored / unsure. No real motivation to attend sessions. Motivation of participation with rewarding throughout session is required.* *One child who presented disciplinary issues in previous the session did not attend this one. Two children were late. Programme adherence and attendance is low. One child was late because he was waiting in line at home to wash ...* *Direct engagement with children and addressing session issues work well. Rapport and building therapeutic alliance is a far more important process factor than discipline and will most probably enhance participation in the intervention.* *The inclusion of the facilitator in session process and activities. This will make activities easier as children can learn by example, but also enhance facilitator rapport and alliance.*
Programme Language and metaphors	Language and metaphor mismatches were identified.	*Very important to utilise colloquial words for fear / anxiety: "vresig"* (closest English translation: scaredy) / *scared and also include the word "shy" as this is defined as social anxiety.* *The use of the word 'nervous' causes problems in interpretation, particularly young children who do not identity it as fear.* (continued)

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Intervention Messages	Lack of empowerment messages mismatched with children who are not assertive.	*Session should be experienced as empowering for children. This is lacking in the current format.*
Intervention Materials	Manual items mismatched with new context in terms of delivery.	*A sample script for the relaxation activity should be included in the facilitator manual as well as guidelines for implementation as the intention is for facilitators to deliver the programme.* *WEK tasks need to be simplified and reformulated to enhance understanding.*
Intervention Activities	New context requires more interactive approach to activities. Simplified, child-friendly delivery is required.	*More interactive – lecture style not working.* *Must be refined with the inclusion of more pictures and a more user-friendly outline.* *The feelings in the body activity needs to be improved as this information is not retained and understood as necessary for the successful implementation of this session.* *Consider ways to make relaxation training more effective (introduce earlier in programme, link it to the need of each session – closure, link it to a daily activity to encourage practise at home, reward practice in session).* *Need to write concepts on the board – as children indicate a need for this – must be limited to ensure time-management and engagement – use of posters?*

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Activities should be more interactive – perhaps include role play rather than workbook tasks?

Therapist should not rely on manual or read information to children – must be engaging and prepared. (script?)

More interaction, more games required. The inclusion of more inclusive, interactive group-based work may enhance outcomes. Move away from manual / workbook-based sessions.

Repetition required to ensure acquisition and retention of core components.

The activity of the fear schedule inappropriate. Children found it difficult to assimilate information.

Session must be structured to be more inclusive.

Session should be restructured with variation in presentation.

Facilitator struggles to translate information into child-friendly presentation – training required / script to assist in presentation style.

The "feelings in the body" activity not very effective in its current format. Children lose focus of intended outcome and state things like "I don't have a body like that". Children are unable to identify feelings situated in the body – consider including an activity to

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		introduce this concept and remind children of past fear-inducing experiences in a more tangible way. Activity may be more interactive – one body on a large cardboard and the group identifies feelings together. *Too little interaction / movement. Too much offered in terms of "explanation" / teaching. Children require more tactical and also varied learning experience.* *Children seem lost in the process – there is too little animation and engagement.* *Session must be restructured to be more effective, impactful and engaging – the inclusion of media, posters, pictures etc may enhance process.*
Characteristics of agency through which services offered	Mismatches in the intended programme delivery person, manner and location.	Researcher notes. *Modifying the form of programme delivery is required. Presenting the same programme content with cultural and child-friendliness adaptation and with changes in: (1) characteristics of the delivery person(s) – lay counsellors or registered counsellors or community workers; (2) channel of delivery – from manual-based and requiring literacy to interactive; (3) location of delivery – from urban, well-resourced school classroom setting to semi-rural, under-resourced, crowded and noisy aftercare setting;* (4) *Speed of delivery – from 12 weekly sessions to intensive daily delivery.*

Note. This table presents example extracts from consultations, observations and researcher notes gathered during the contextual adaptation implemented in *Phase 1* of the current study in support of identified mismatches between the DUTCH programme and the new context.

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Appendix J

Step 7: Content and Delivery Process Adaptations

Table 9

Summary of supporting information for Step 7 of the cross-cultural adaptation framework suggested by Card et al. (2011)

Content-based adaptations	
BRAVE replaces the *Dappere Kat.*	Alternative metaphors were explored. The cat, lion and superhero were found to be irrelevant. The concept of the "I" representing all children in the population and the removal of metaphors that are inaccessible were included in the adaptation.
Inclusion of context-specific examples.	All examples in the DUTCH programme that were associated with Dutch / Western culture and not relatable to the new population were replaced. For example, travel by bicycle was replaced by taxis / farm trucks.
Context and culturally relevant narratives of children (both genders) were included as examples / models for the intended change.	In light of the choice of "I am Brave" as the main metaphor of this adapted programme, it was decided to include narratives of children who represented the lived context of children in this population to normalise the experience of anxiety, to teach psycho-educational concepts and to model CBT-based skills and associated change. Narratives contained stories of children with whom the new

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	population of children could relate – farm children who have experiences that children can identify with - the stories of *Dapper Donovan* (Brave Donovan) and *Dapper Danica* (Brave Danica). Additionally, the researcher established via consultations that storytelling was a culturally sensitive and child-friendly means of engaging both children and adults with anecdotal information that indicated that complex and rich narratives (often with a humorous twist or moral) were often shared in communities who speak the Afrikaans language in South Africa.
The FEAR plan was replaced by the I CAN CHOOSE plan (the *Ek KAN KIES* plan).	In response to a context where the population of children reported being exposed to real dangers and traumas in the form of violent crime, for example; the fact that the word 'fear' did not linguistically represent social anxiety; reports by children that they were often more likely to express fear responses in more 'acceptable' ways in the form of anger; and the time and financial limitations to parental provision of rewards for participation in the programme, the FEAR plan was replaced by the I CAN CHOOSE plan: C = Calm down my feelings, A: Adapt my thoughts, and N: make NEW plans. The programme message was formulated to include that even though one cannot choose what happens, by choosing one's emotive, cognitive and behavioural responses, one can choose the impact of experiences.
Public speaking in English was utilised as a group exposure task.	Consultation with NGO social workers indicated that speaking in English as a universally feared experience in this population of Afrikaans-speaking children. As public speaking in general evokes

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	anxiety, it was included as the group exposure task for sessions. Graded group exposure was implemented and structured to become increasingly challenging: the fist exposure session entailed speaking in a group within the session venue, the second exposure session entailed speaking in pairs outside session venues and the third exposure (also the final session) entailed speaking individually in a venue away from the farm site to people unfamiliar to the children.
Delivery process-based adaptations	
Scaffolding of delivery of content.	The delivery of psycho-educational materials in the first four sessions was restructured to ensure that information was presented in an accessible, step-wise manner.
Built-in reward system.	As the importance of rewarding had been reduced by its removal from the programme intervention plan (CAN plan instead of FEAR plan) and since parent-based rewards had been eliminated from the programme model, delivery of programme content was reconstructed to include two forms of built-in rewards: 1) session participation rewards (such as stickers), 2) symbolic psychoeducational session attendance rewards (Session 1: Pencil and eraser for use with workbook, Session 2: a spring to symbolise relaxation, Session 3: bubbles to symbolise the activity *burst that negative thought bubble* and Session 4: Planning note book to write new plans / solutions to problems.), and 3) personal rewards in exposure sessions – praise from facilitators and successful completion as the reward.
Multiple delivery methods.	To cater for varied interest and motivation in observed responses to the DUTCH programme delivery

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	process in the new context, multiple delivery methods were included to cater for different learning styles and requirements, such as the use of posters, physical interactive activities, storytelling, role play, writing, etc.
Interactive games.	To improve the low level of engagement with the DUTCH programme delivery process, focus on manual-based delivery was adapted to more interactive, humorous and fun activities and games.

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Appendix K

Written permission from the collaborating NGO director to conduct the study

Note: This document contained confidential, identifying information and will be available on request.

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Appendix L

Collaborating NGO social worker letter of confirmation of referral role in the study

Note: This document contained confidential, identifying information and will be available on request.

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Appendix M

Letters of Humaniora Ethics Approval for 2015 and 2016

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Approval Notice
Stipulated documents/requirements

24-Jul-2015
Myburgh, Naomi N

Proposal #: HS1186/2015

Title: **Adapting and Piloting a Cognitive-Behavioural Group Therapy-based Anxiety Intervention Programme for Vulnerable Children from a Disadvantaged Background within the South African Context**

Dear Ms Naomi Myburgh,

Your **Stipulated documents/requirements** received on **26-Jun-2015**, was reviewed by members of the Research Ethics Committee: Human Research (Humanities) via Expedited review procedure on **23-Jul-2015** and was approved.
Sincerely,

Clarissa Graham
REC Coordinator
Research Ethics Committee: Human Research (Humanities)

Investigator Responsibilities
Protection of Human Research Participants

Some of the general responsibilities investigators have when conducting research involving human participants are listed below:

1.Conducting the Research. You are responsible for making sure that the research is conducted according to the REC approved research protocol. You are also responsible for the actions of all your co-investigators and research staff involved with this research. You must also ensure that the research is conducted within the standards of your field of research.

2.Participant Enrollment. You may not recruit or enroll participants prior to the REC approval date or after the expiration date of REC approval. All recruitment materials for any form of media must be approved by the REC prior to their use. If you need to recruit more participants than was noted in your REC approval letter, you must submit an amendment requesting an increase in the number of participants.

3.Informed Consent. You are responsible for obtaining and documenting effective informed consent using only the REC-approved consent documents, and for ensuring that no human participants are involved in research prior to obtaining their informed consent. Please give all participants copies of the signed informed consent documents. Keep the originals in your secured research files for at least five (5) years.

4.Continuing Review. The REC must review and approve all REC-approved research proposals at intervals appropriate to the degree of risk but not less than once per year. There is **no grace period.** Prior to the date on which the REC approval of the research expires, **it is your responsibility to submit the continuing review report in a timely fashion to ensure a lapse in REC approval does not occur.** If REC approval of your research lapses, you must stop new participant enrollment, and contact the REC office immediately.

5.Amendments and Changes. If you wish to amend or change any aspect of your research (such as research design, interventions or procedures, number of participants, participant population, informed consent document, instruments, surveys or recruiting material), you must submit the amendment to the REC for review using the current Amendment Form. You **may not initiate** any amendments or changes to your research without first obtaining written REC review and approval. The only exception is when it is necessary to eliminate apparent immediate hazards to participants and the REC should be immediately informed of this necessity.

6.Adverse or Unanticipated Events. Any serious adverse events, participant complaints, and all unanticipated problems that involve risks to participants or others, as well as any research related injuries, occurring at this institution or at other performance sites must be reported to Malene Fouch within five (5) days of discovery of the incident. You must also report any instances of serious or continuing problems, or non-compliance with the RECs requirements for protecting human research participants. The only exception to this policy is that the death of a research participant must be reported in accordance with the Stellenbosch University Research Ethics Committee Standard Operating Procedures. All reportable events should be submitted to the REC using the Serious Adverse Event Report Form.

7.Research Record Keeping. You must keep the following research related records, at a minimum, in a secure location for a minimum of five years: the REC approved research proposal and all amendments; all informed consent documents; recruiting materials; continuing review reports; adverse or unanticipated events; and all correspondence from the REC

8.Provision of Counselling or emergency support. When a dedicated counsellor or psychologist provides support to a participant without prior REC review and approval, to the extent permitted by law, such activities will not be recognised as research nor the data used in support of research. Such cases should be indicated in the progress report or final report.

9.Final reports. When you have completed (no further participant enrollment, interactions, interventions or data analysis) or stopped work on your research, you must submit a Final Report to the REC.

10.On-Site Evaluations, Inspections, or Audits. If you are notified that your research will be reviewed or audited by the sponsor or any other external agency or any internal group, you must inform the REC immediately of the impending audit/evaluation.

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Approval Notice
Amendment

22-Jun-2016
Myburgh, Naomi N

Proposal #: HS1186/2015
Title: **Adapting and Piloting a Cognitive-Behavioural Group Therapy-based Anxiety Intervention Programme for Vulnerable Children from a Disadvantaged Background within the South African Context**

Dear Ms Naomi Myburgh,

Your **Amendment** received on **20-Jun-2016**, was reviewed by members of the **Research Ethics Committee: Human Research (Humanities)** via Expedited review procedures on **22-Jun-2016** and was approved.
Sincerely,

Clarissa Graham
REC Coordinator
Research Ethics Committee: Human Research (Humanities)

Investigator Responsibilities

Protection of Human Research Participants

Some of the general responsibilities investigators have when conducting research involving human participants are listed below:

1.Conducting the Research. You are responsible for making sure that the research is conducted according to the REC approved research protocol. You are also responsible for the actions of all your co-investigators and research staff involved with this research. You must also ensure that the research is conducted within the standards of your field of research.

2.Participant Enrollment. You may not recruit or enroll participants prior to the REC approval date or after the expiration date of REC approval. All recruitment materials for any form of media must be approved by the REC prior to their use. If you need to recruit more participants than was noted in your REC approval letter, you must submit an amendment requesting an increase in the number of participants.

3.Informed Consent. You are responsible for obtaining and documenting effective informed consent using **only** the REC-approved consent documents, and for ensuring that no human participants are involved in research prior to obtaining their informed consent. Please give all participants copies of the signed informed consent documents. Keep the originals in your secured research files for at least five (5) years.

4.Continuing Review. The REC must review and approve all REC-approved research proposals at intervals appropriate to the degree of risk but not less than once per year. There is **no grace period.** Prior to the date on which the REC approval of the research expires, **it is your responsibility to submit the continuing review report in a timely fashion to ensure a lapse in REC approval does not occur.** If REC approval of your research lapses, you must stop new participant enrollment, and contact the REC office immediately.

5.Amendments and Changes. If you wish to amend or change any aspect of your research (such as research design, interventions or procedures, number of participants, participant population, informed consent document, instruments, surveys or recruiting material), you must submit the amendment to the REC for review using the current Amendment Form. You **may not initiate** any amendments or changes to your research without first obtaining written REC review and approval. The **only exception** is when it is necessary to eliminate apparent immediate hazards to participants and the REC should be immediately informed of this necessity.

6.Adverse or Unanticipated Events. Any serious adverse events, participant complaints, and all unanticipated problems that involve risks to participants or others, as well as any research related injuries, occurring at this institution or at other performance sites must be reported to Malene Fouch within **five (5) days** of discovery of the incident. You must also report any instances of serious or continuing problems, or non-compliance with the RECs requirements for protecting human research participants. The only exception to this policy is that the death of a research participant must be reported in accordance with the Stellenbosch Universtiy Research Ethics Committee Standard Operating Procedures. All reportable events should be submitted to the REC using the Serious Adverse Event Report Form.

7.Research Record Keeping. You must keep the following research related records, at a minimum, in a secure location for a minimum of five years: the REC approved research proposal and all amendments; all informed consent documents; recruiting materials; continuing review reports; adverse or unanticipated events; and all correspondence from the REC

8.Provision of Counselling or emergency support. When a dedicated counsellor or psychologist provides support to a participant without prior REC review and approval, to the extent permitted by law, such activities will not be recognised as research nor the data used in support of research. Such cases should be indicated in the progress report or final report.

9.Final reports. When you have completed (no further participant enrollment, interactions, interventions or data analysis) or stopped work on your research, you must submit a Final Report to the REC.

10.On-Site Evaluations, Inspections, or Audits. If you are notified that your research will be reviewed or audited by the sponsor or any other external agency or any internal group, you must inform the REC immediately of the impending audit/evaluation.

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Appendix N

Parental consent form

Note: This document contained confidential, identifying information and will be available on request.

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Appendix O

Child participant assent form

Note: This document contained confidential, identifying information and will be available on request.

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Appendix P

Qualitative Form 1: Session-wise participant qualitative feedback form

based on Visagie (2016)

PARTICIPANT FEEDBACK FORM

I would like to know what you think of the programme thusfar. Remember, you can be completely honest, because it will help me a great deal. Evrything that you day in this form will be confidential (no-one will know what you said except for you and me) and you will stay anonymous (no-one will know that you said it).

Complete the following form please.

Your name: _____

Your surname: _____

Your birthday: _____

How did you find today's session? Tell me more.

_____
_____
_____
_____
_____

Did you learn anything during today's session? Tell me more.

_____
_____
_____
_____
_____

What do you remember best of the session / programme today?

_____
_____
_____
_____
_____

Is there anything else that you would like to mention?

_____
_____
_____
_____
_____

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Appendix Q

3-Month post-intervention follow-up focus group schedule

based on Visagie (2016)

3-MONTH POST-INTERVENTION FOCUS GROUP SCRIPT

All the information from this focus group discussion will only be used for the research project to help us understand how you experienced the programme so that we can see if it will work to help children. The information will be confidential and anonymous. We must also remember that what we say on our group must not be shared with others – you can share your own information with mom, for example, but not what any of our group members have said. It is important that you say what you really think and that you know that nothing bad will happen and no-one will be angry because of anything you say. There are no right or wrong answers.

Questions that will be discussed:

1. What did you like most about the programme?

2. What did you learn from the programme?

3. What was the most or least helpful in the programme?

4. Do you think the programme should be changed? If so, what must be changed?

5. What did you like best or least about the facilitator(s)?

6. What did you like / dislike about the workbooks?

7.1 Did the programme teach you about feelings?

7.2 Did the programme teach you how to change bad / anxious / unhelpful feelings?

7.3 Tell me more / give me examples.

8.1 Did the programme teach you about thoughts?

8.2 Did the programme teach you how to change unhelpful thoughts?

8.3 Tell me more / give me examples.

9.1 Did the programme teach you about behaviour?

9.2 Dis the programme teach you how to change your behaviour?

9.3 Tell me more / give me examples.

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Appendix R

Certificate of Training in the delivery of the Dutch *Dappere Kat* programme

TRAINING CERTIFICATE

DAPPERE KAT PREVENTION PROGRAM
AND BASIC COGNITIVE BEHAVIOURAL THERAPY
SKILLS

THIS CERTIFICATE IS AWARDED TO

Ms. N. Myburgh

COMPLETED FULL TRAINING ON

May 16, 17 & 18 2014 (20 hours)

Prof. dr. R. Engels:

drs. R. Kuijpers:

drs. M. van Starrenburg:

Radboud Universiteit Nijmegen

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Appendix S

Demographic Questionnaire

Note: This document will be available on request.

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Appendix T

Copy of the Spence Children's Anxiety Scale (SCAS-C)

Note: The cross-culturally adapted Afrikaans version of the SCAS-C may be requested and will be available only with the permission of Professor Susan Spence.

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Appendix U

Copy of the Spence Children's Anxiety Scale: Parent Version (SCAS-P)

Note: The cross-culturally adapted Afrikaans version of the SCAS-P may be requested and will be available only with the permission of Professor Susan Spence.

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Appendix V

Session outline of the *BRAVE* programme

Table 12

Summary of the BRAVE programme session titles, goals and session activities

Sessions	Session Title	Session Goals	Examples of Session Activities to Reach Session Goals
Session 1	What are we doing here?	• Building group rapport and introducing group contract. • Providing information about the programme • Learning child-friendly first step to relaxation activity: deep breathing.	• *Feelings in the Hat Activity*: A non-threatening, child-friendly icebreaker in which facilitators actively take part, that explores existing knowledge about feelings to guide preparation of Session 2 content. This activity also identifies children whose social anxiety may influence participation in the group delivery process, introduces the concept of respect and trust in the group, focuses the programme content on anxiety and normalises the experience of fear. • *Dapper Donovan Narrative*: contextually sensitive narrative of a boy child who lives in a similar cultural and environmental context and experiences relatable anxiety-provoking situations. The narrative further normalises the experience of anxiety, is non-threatening and child-friendly, builds on developing empathy in a context where

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			• children may ridicule fear-responses, and reinforces session and programme goals by means of indirect modelling.

Session 2	C in the *I CAN choose* plan: Calming my feelings.	• To explain the rationale of the *I CAN choose* plan.
		• To learn the first step of the *I CAN choose* plan: Calm down my feelings:
		  ○ The recognition of different feelings.
		  ○ The understanding and recognition of bodily / physiological reactions to anxiety.
		  ○ To understand and recognise levels of anxiety by means of a child-friendly anxiety scale / meter.
			• *Facilitator led role play - facial expressions and physiological responses to anxiety*: child-friendly and contextually tailored scenarios that depict anxiety-provoking experiences are presented by facilitators and / children who volunteer participation - role play focuses on depicting facial expressions and physiological reactions to (anxious) scenarios. In a humorous and non-threatening manner, the recognition of different feelings and bodily reactions is introduced.
			• *Drawing feelings on the body*: large poster paper and pens are provided. In the group, children draw where anxious feelings are experienced in the body and discuss. This follows the role play scenarios.
			• *Fear meter* (adapted from Stallard, 2005)**:** a colourful picture of a speedometer that serves as a visual cue for measuring levels of anxiety is provided. The *Dapper Donovan* narrative is used to introduce children to the concept of varying levels of anxiety and an interactive activity, *the robot and spring* (adapted from Visagie, 2016) is used to illustrate the difference between an anxious and

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		○ To learn and apply a relaxation method to reduce physiological reactions to anxiety.	relaxed physiological state. Children discuss *Dapper Donovan's* levels of anxiety, using the poster for reference. This is linked to relaxation training to illustrate emotive control to reduce physiological anxiety symptoms.
Session 3	A in the *I CAN choose* plan: Alternative thoughts.	• To make participants aware of their own thoughts, especially unhelpful (anxious) thoughts that maintain anxiety. • To teach participants cognitive-restructuring skills – to challenge and change unhelpful thoughts and replace them with helpful thoughts / positive self-talk. • To practise changing thoughts and relaxation.	*Dapper Danica Narrative*: is a child-friendly, contextually tailored narrative of a girl child who lives in a similar cultural and environmental context and experiences relatable anxiety-provoking situations. This character is used to illustrate the link between anxious feelings and unhelpful thoughts and to teach a 3 step-wise cognitive restructuring method. *Stepwise cognitive restructuring: Stop and Think, Burst that Negative Thought Bubble, Think again, think positively!* Children are taught (with the aid of hand movements) to, when confronted with an anxiety-provoking situation, stop and consider their thoughts that maintain their anxious feelings in *stop and think*. A poster is put up with a column for helpful and a column for unhelpful thoughts. Children in the group are given thought bubbles that the character *Dapper Danica* think in response to an anxiety-provoking situation – some with unhelpful thoughts and some with helpful thoughts. A discussion emphasises the

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			difference between the two types of thoughts and children place bubbles on the poster to categorise the thoughts given. The impact of negative thoughts is illustrated with an interactive activity (*standing on one leg*, adapted from Visagie, 2016). Then unhelpful thoughts are burst with pins in *burst that negative thought bubble* and children are taught to replace them with helpful thoughts in *think again, think positively*!
Session 4	N in the *I CAN choose* plan: make New plans.	• Revision of the first two steps of the I CAN choose plan: ○ C: Calm down my feelings. ○ Alternative thoughts. • Introduction and practise of the N of the *I CAN choose* plain: make New plans. ○ How to brainstorm new plans. ○ How to problem-solve. • To set up individual anxiety hierarchies and plan homework exposure tasks.	*Facilitator self-disclosure*: to normalise anxiety and to enhance facilitator rapport before implementing exposure sessions. The facilitator shares a scripted (yet flexible in topic) anxiety-provoking experience in which avoidance was the behavioural coping mechanism / choice. Children are encouraged to point out how avoidance maintained anxiety and to point out negative consequences of the facilitator's avoidance. Children are then introduced to problem-solving skills in a step-wise approach that included two questions in the final step to be used to evaluate potential behavioural choices: *Is my plan safe and possible?* (to address real, dangerous anxiety-provoking experiences in the South African context, such as violent crime) and *Is my plan helpful?* (to ensure that avoidant behavioural choices are eliminated). Finally, children are asked to provide the facilitator with plans to apply (over the

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			weekend as this is the final session of Week 1 of the programme) to overcome her anxiety. *The fear ladder* (adapted from Stallard, 2005): Children are introduced to the concept that *N: New plans* in the *I CAN choose* plan will involve exposure to practise CBT-based skills. Placing exposure on a fear ladder and starting with exposures that are lower on the ladder is taught towards the implementation of graded exposure.

Session 5	Getting it all together – applying the *I CAN choose* plan.	• Revision of the *I CAN choose* plan.
		• To set up a personal anxiety hierarchy for individual exposure activities in WEK task.
		• To implement first exposure activity and the application of the *I CAN choose* plan by means of:
		  ○ Facilitator self-disclosure of exposure.
		  ○ Imaginal exposure.
			I CAN choose plan is related to the CBT-triad in a revision session.
			
			Facilitator self-disclosure: the facilitator discloses the outcome of her integrated application of the *I CAN choose* plan to her feared situation. The scripted disclosure includes failure in the first attempt and ends with a successful exposure activity in which anxiety was reduced by means of emotive control, cognitive restructuring and behavioural modification.
			
			Imaginal exposure is utilised to demonstrate further the integrated CBT-based *I CAN choose* plan with all steps covered and the introduction of a positive self-talk phrase: *I CAN do it*!

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Sessions 6 – 8.	Let's practise.	• To practise and apply the *I CAN choose* plan by means of exposure: relaxation, cognitive restructuring and behaviour modification. • To illustrate the impact of application of learnt skills in anxiety-provoking situations.	*Graded exposure*: Session exposures were structured according to information obtained from NGO social workers and children pertaining to the most likely fears that could be addressed in a group format – public speaking in English. Graded exposure was applied with Session 6 implementing public speaking within the session confines and in the group of four, Session 7 implementing public speaking inside and / or outside the session confines in pairs, and Session 8 implementing public speaking in an unfamiliar environment individually. Each exposure entailed the application of *the I CAN choose* plan. *Homework exposure tasks*: were decided individually with the assistance of the facilitator(s) and the *fear ladder*. As children's parents were not (always) involved in this process, facilitators ensured that children set up exposures that would be on a lower level of the *fear ladder* and would most likely lead to successful implementation. Support from group members was encouraged to build group rapport and trust.